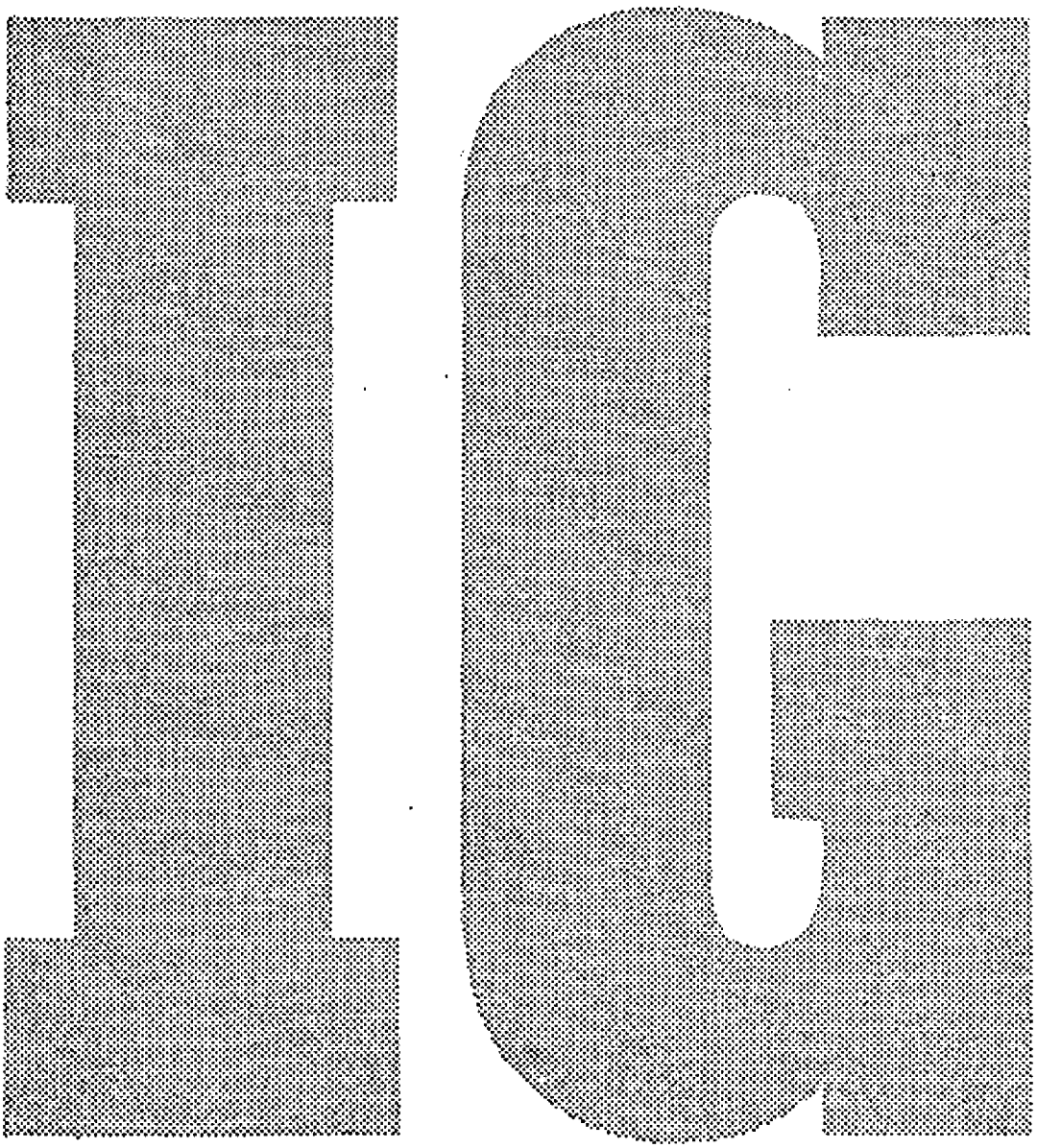
IG FARBEN



I.G. FARBEN

RICHARD SASULY

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Unquestionably the most important thing about this book is the fact that it could be written at all. Entry into the great plants, and files and records, of the IG Farbenindustrie was gained by force of allied arms from east and west at the climax of the Second World War. To make order out of the wreckage of the evidence of IG Farben's war crimes required intensive work by a team of investigators under Colonel Bernard Bernstein, financial adviser to General Eisenhower. The chance to write the story of IG Farben was in every sense a by-product of victory in the war.

* * * * * * *

For help in the work of finishing this book, the author is indebted to Edward and Jeannette Tenenbaum, Belle Mayer, Loretta April and Meredith Davis.

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Naturally, the author bears sole responsibility for any mistakes the book may contain.

ERRATUM

Line 6 on Page 61 of this book should read "230" instead of "320" as it does now.

TABLE OF CONTENTS

Chapter

1	German Tourist Guide — 1945	3
2	The Birth of IG	18
3	1925	38
4	The Savior	53
5	Arms by Night	72
6	The Quiet War	89
7	Bloody Harvest	113
8	Questions and Answers	127
9	Big Fight in Waltz Time	141
10	Against the New World	161
11	Ending? — U.S.A.	178
12	Ending? — Germany	191
13	To Make Amends	215
14	Brush Fire	225
	Appendix One	235
	Appendix Two	251
	Appendix Three	271
	References	303
	Index	306

PREFACE

by

Senator Claude Pepper

If there is a man living who would dare say publicly that he is not for peace, I do not know where to find him. Yet, in spite of the unanimous professions for peace, when we get down to specific peace policies and programs, we are confronted with a Babel-like confusion. There are two reasons for this. First, we do not all want the same kind of peace—some want a peace based upon international cooperation and some want a peace based upon invincibility of arms; some want a *Pax Americana* and some want a World State. Second, we do not agree on what are the real causes of war.

To build a sound peace, we must be relentless in identifying and exposing the things that make for war. It is the merit of this book that it contributes to the necessary insight as regards the causes of the second world war. This book is a story of melodramatic industrial intrigue and espionage and cartel building, but very much more than that, it is a story of what lay behind the German drive to war. Let it be remembered that the Nazi war menace took shape slowly over a period of years. It took various forms of diplomatic, economic and military pressure. Yet all the while, one master combine, IG Farben, the German chemical trust, representative of the tight inner circle of German monopoly, operated behind the scenes to give a constant drive and purpose to the Nazi juggernaut.

The German war maker, in a real sense, was not so much Adolph Hitler's brown-shirted, swaggering storm trooper, as it was the soberly-clad superficially honorable type—Hjalmar Schacht or Hermann Schmitz, president of IG Farben. This is the theme of the book, and I believe it is supported by the evidence. It was the particular function of the leaders of IG Farben and a handful of other German corporations to start preparations for another world war, just as soon as World War I was over. It was they who assured Hitler's victory in Germany in 1933. And it was they who set the pace in the looting of Europe during those first years of the war while the Wehrmacht was rolling over conquered countries.

We are concerned here with something rather more important than the allocation of guilt for a war already past. The case of IG Farben cannot yet be laid away in the historian's file. IG Farben and the kind of cartel practice of which it was the most dynamic specimen are still very much with us. They still constitute a threat to the peace of a world which has not yet finished counting the dead of World War II. It seems to me that there is a tendency today to forget who were our enemies and who were our allies—to forget the causes of the last war, and, therefore, the potential causes of the next war. I do not maintain that every German is an enemy and will remain one for the rest of time. But I do maintain that IG Farbenism is an enemy and will remain one; and for the evidence of this, I refer you to this book. Here the evidence is freshly and convincingly set out.

Mr. Sasuly was in a key position to study the nature and evidence of IG ramifications in the political as well as the economic field. He was chief of financial intelligence and liasion of the Finance Division of United States Military Government. He was one of the investigators who analyzed the files and prepared the case against IG. As you will see from this book, it is an overwhelming case.

IG FARBEN

1

German Tourist Guide 1945

Deep in the forests of eastern Bavaria the Nazis hid their newest war plants. You can pass them on a road and see nothing. You can fly over them and again see nothing but the dense green blanket of the trees.

The munitions works are perfectly camouflaged. They are painted dirty grays and yellows, covered by netting where they stand in small clearings. Some of the units of a plant may be underground. Generally they are widely scattered, connected by miles of green pipes.

Foreign slave labor built and operated most of these munitions plants under the management of IG Farbenindustrie, the biggest of German monopolies. Now the foreign slaves have gone home. The plants stand dingy and sullen-looking —but undamaged.

Some of the hidden factories still operate. They make a variety of peacetime chemicals; they can be converted back to war production tomorrow.

Some are idle. In an idle factory you will probably find

no one but a German engineer making a last inventory of the plant. He is likely to be a lonely and depressed man. He did not enjoy operating the factory in the trees. The units were too scattered. It was too hard to keep track of the foreign slaves; under cover of the trees, they were always disappearing for a rest. Now the engineer has nothing to do but list equipment in a munitions plant which stands empty and deserted—waiting, in the quiet of the forest.

In one clearing in the Bavarian woods stands a half-completed structure, a nightmare of the builder's craft. It might be a great sewer pipe lying on its side half out of the earth, but it is far too big for that. It might be a huge airplane hangar with a completely arched roof, but it is too big for that also. It is half a mile long, perhaps a hundred yards wide at ground level, more than a hundred feet high. It was intended for a Messerschmitt airplane plant.

To build the plant, part of the floor of a small valley was dug away. An enormous mass of sand was piled in a long mound in the excavation. On top of the sand, two layers of concrete were poured, reinforced with steel, in an arch twenty feet thick. On top of the concrete twenty feet of sod was to be piled with trees planted so that the whole structure would seem to disappear into the woods. Finally, the sand was dug out from beneath the concrete and in the vast arched space remaining all the machinery for an airplane factory was to have been installed.

The building was never completed; all the stages of construction can be seen, as if diagramed. It stands now naked and ugly and completely abandoned except for a Bavarian peasant watchman and occasional American service troops who come up in trucks and take infinitesimal scoops of sand out of the huge pile which had been taken from beneath the concrete. The Bavarian watchman looks at it and mutters and calls it "the Devil's work." It might have been an answer to atomic warfare, the completely bombproof factory;

it could hardly have been damaged by any known blockbuster.

The work was not begun until August of 1944. In that month American troops were racing across France. Paris had been liberated—by its own people. General Eisenhower thought there was a good chance of ending the war by September or October. Yet at that very time the Germans started construction of a completely bombproof factory and pushed the work ahead with terrible intensity until that very day in April, 1945, when the first American troops appeared in the area. Thousands of slave workers were kept at the job in shifts around the clock. SS guards surrounded the job; near-by townspeople never knew what was being built. In a country scraping the bottom of its manpower resources, new slave workers were thrown in as fast as others died or were killed. Defeat loomed bigger with each crack in the faltering transportation system, but uncounted thousands of tons of sand and building materials were brought in by rail and truck. In eight months snatched from the end of the war, construction was nearly half finished.

And for what? It might have been organization gone mad and devouring itself in a last frenzy of keeping going at any cost. It might have been hope, a hope which is still alive and goes whispering through the sullen and beaten land: the hope that they might be permitted to finish the job to build airplanes for another war, a war this time with friends at their backs, against the well-hated Russians in the East.

Now the half-finished hulk is another one of Hitler's war monuments in the Bavarian woods. It too stands desolate and still along with the munitions plants, symbol of a power badly hurt but not broken, dangerous as the adder, waiting.

The war ended on different days in the part of Germany captured by the American Army. The victorious troops would pass through a town, sometimes even without a fight, and behind them the war was over.

For the Germans the end of the war brought a feeling of relief. American troops were not welcomed but neither were they ostensibly hated. For a long time there had been no future for the Germans except air raids and terror. Now at least there was safety.

The dead of the armies lay where they had fallen in combat. In every town there were still civilian dead under the rubble. But everything had stopped, there were no shells or bombs to fear, and there was nothing to do. Even German devotion to duty could stop. In cities people sat in parks and sunned themselves. In most places there were bomb craters in the parks and ruined buildings all around. After a while rubble looks normal. The people looking at the rubble appeared normal. Compared to the French they seemed well-fed and healthy. The women—and what few men there were—wore stockings and leather shoes. The characteristic sound on a French street had been the clatter of wood-soled shoes.

Most of the German cities were ruined. In the zone occupied by the American armies, Heidelberg was the only large town which had not been badly hit. At first sight it seemed as if decades must pass before Germany could ever again be a major producer; looking at the ruins of cities it did not seem possible that factories could be intact.

The first sight was deceptive. It was true that the Germans would live in discomfort for many years to come. But houses were easier to hit and damage than factories. Factories were on the outskirts of towns; the bomb clusters fell mainly in the centers. Even when hit, the shell of the factory building took most of the damage. Where the machinery was damaged too, the Germans generally had done a fast job of repair, making good use of a tremendous over-supply of machine tools.

On the outskirts of Munich, on one of the main roads leading into town, was a plant of the Bavarian Motor Works where jet engines were made. The building was a mess—

the roof destroyed, the walls partially caved in. Looking at it, one would think that here at least was one plant which could never again produce for war. On the inside the view was entirely different. Revetments had been built around the blocks of important machinery; the building itself had taken the whole beating and the plant had never stopped producing throughout the war.

The truth is that given fuel, materials, a few quick repairs, and adequate transportation, the German economy could soon have produced at perhaps ninety per cent of its peak capacity. After a year of occupation by the victorious Allies, German production was still generally low. But that was mainly due to the continuing tie-up of coal and transportation. And the transportation system had been hurt worst by the Germans as they blew up bridges and destroyed roads in the final month of the war.

The factories themselves looked like factories anywhere in the world. The fancy war-built jobs, hidden away in remote forests and super-camouflaged, were something special. The regular industrial plants, backbone of the most highly concentrated system of production in Europe, could have been in Manchester, in Lille, or in Pittsburgh. Cities, homes, farm buildings, all bear the signs of national culture. But the factories are international. For Americans from industrial centers the most familiar sights in Germany were the big, dingy, red brick buildings, the long peaked-roof sheds, the tall smokestacks and furnaces and the spur railroad tracks. The only things missing were the eternal clouds of factory smoke and the crowds at the gates when shifts changed. It might have been merely a deep depression.

German industry had been the main support of a conspiracy against the world which nearly succeeded in bringing back an age of mechanized feudalism. It took the combined strength of the United States, the British Empire, and

Soviet Russia finally to crush the armies which moved on the wheels of the German industrial system. Before the end came, the great productive forces of Germany had been able to unleash destruction on a scale vaster than anything dreamed of before.

Towering over the rest of the German industrial concerns was the IG Farbenindustrie A.G. IG Farben was Germany's greatest corporation and the kingpin of the German war effort.

IG Farben factories were dotted all over the map of Germany. IG Farben's influence extended far beyond the boundaries of Germany. As fast as the Wehrmacht moved forward in the years from 1939 to 1943, IG Farben followed close after picking up control of plants in the conquered countries. Long before the war, Farben had acquired a large measure of influence over foreign industries through the shrewd use of cartels. More than any other corporation in the world, IG was at the center of the network of international cartels which control a bewildering array of products from oil to rubber to dyes to nitrogen to explosives to aluminum to nickel to synthetic silks. It is more than three thousand miles from the headquarters of IG Farben in Frankfurt-on-the-Main in Germany to the shores of the free and powerful United States of America, but Farben had a great deal to say about U. S. war production.

The full name of IG Farben is *Interessen Gemeinschaft Farbenindustrie Aktiengesellschaft,* meaning: "community of interests of dye industries, incorporated." The "community of interests" part of the name really stood for "monopoly" or "cartels," but the men of IG preferred a loftier interpretation. Professor Erwin Selck, a member of the supervisory board of directors, tried to explain it to American investigators: "Community of interest: working together for the common good, co-operation. You understand?" he said, and his grim, death's head face cracked into a smile. Besides his

IG duties, Selck had also been the leader of a company of SS cavalry.

The whole name is deceptively modest. Dyestuffs were only a part of IG's chemical production. And chemicals were only a part of IG's total production.

Secrecy shrouded every activity of IG Farben. Even now, after intensive investigations, the exact worth of IG Farben is not known. It is known that the net worth of Farben amounted to more than six billion marks at the least. It is known that Farben had a share, and generally the lion's share, in the control of more than three hundred and eighty other German firms. The IG men were particularly secretive about their foreign connections, but it is established that the IG Farben world organization included more than five hundred firms abroad.

IG Farben lived up to its position as the biggest and strongest chemical combine in the whole world. It acted on a grand scale. The IG headquarters in Frankfurt was a modern building, large enough for any government department. The IG was almost a complete empire in itself. It had its own mines for coal, magnesite, gypsum, and salt. It had its own coke ovens and was a heavy investor in steel firms. When Henry Ford started a branch of his company in Germany, IG Farben snapped up the bulk of the forty per cent of the stock of the new company which Ford offered for sale in Germany; Professor Carl Bosch, first president of IG Farben, joined the board of the German Ford Company, and Edsel Ford in turn became a member of the board of the then newly formed Amreican IG Company.

As a matter of course, IG Farben had its own house banks and patent and research firms, not only all over Germany but scattered throughout all the main business centers of the world. From raw materials down to the last detail of sales organization and financing, IG Farben controlled everything it needed.

In the international economic battle which takes place through cartels, IG Farben was more than able to hold its own against the world's most powerful corporations, including Standard Oil of New Jersey, Royal Dutch Shell, the Aluminum Company of America, the British Imperial Chemical Industries, and Du Pont.

At the end of the war, the connections among the Farben plants and offices had broken down, along with everything else in Germany. But little real damage had been done to the scattered factories.

By the estimate of IG engineers themselves, damage to plants during most of the war amounted to no more than fifteen per cent of the productive capacity. The engineers estimated that, if they could get the labor and fuel and materials, they could bring production back to more than ninety per cent of capacity within three months. Only a few of the main plants had been hurt and these almost by accident. The great works at Ludwigshafen, for example, suffered some damage, but mainly through bad luck. Ludwigshafen happened to be across the river from Mannheim, where the Neckar River flows into the Rhine. The juncture of two rivers is a good landmark for fliers. Bomber crews who had been over Germany often reorganized at Mannheim for the rest of the trip back. If they still had bombs, Mannheim and Ludwigshafen were handy places on which to jettison them. Toward the end of the war, some of Ludwigshafen's production had to be shifted to other plants.

Synthetic gasoline and lubricating oils had been a main target: IG's capacity in these lines was cut. But the IG synthetic rubber capacity was down only about fifteen per cent, explosives were reduced less than ten per cent, and IG's ability to make great quantities of light metals (aluminum, magnesium, nickel), poison gases, and a host of chemical products was hardly touched. Within the American occupation zone of Germany only one IG plant of any kind suffered

more than fifty per cent damage, and that was a small plant at Cleebronn which made colored signal lights, employing only four hundred and fifty workers; the big plants in the U. S. Zone were virtually untouched.

In spite of the greatest efforts at secrecy, IG had been too important in the years before the war to hide its works from the eyes of the world. The general outline of what it had meant for German power and what it had done to other nations was known, particularly to the U. S. Treasury and Department of Justice investigators who had been trying to pick up the skimpy traces of IG's activities. And the suspicion that IG had successfully weathered strategic bombing and a short campaign on the ground quickly matured.

IG had done great damage to the Allied Nations. It was now clear that the power to do harm still remained almost intact. To probe thoroughly into the workings of IG Farben and to destroy completely its potentialities for war became a top priority job for the military occupation.

For the American side, General Eisenhower delegated the job of investigating IG Farben to the director of Finance for the U. S. Military Government forces, Colonel Bernard Bernstein. Colonel Bernstein, who had come from the U. S. Treasury to be Eisenhower's financial adviser throughout the campaigns in Africa, Italy, and France, undertook to organize on the spot one of the more motley task forces of the war. The group included a few civilians from the Treasury and the Department of Justice, officers from Army, Navy, and Coast Guard, and G. I.'s pulled from outfits in all parts of the world.

The investigation of IG Farben began almost immediately after Frankfurt-on-the-Main had been captured, while the war moved rapidly eastward toward its end. With the smell of smoke still hanging over the town, the investigators went after the records of IG Farben.

There was no trouble finding records of the IG. Records by

the bale and by the carload were there for the taking. To make sense out of them was another matter.

The main headquarters building in Frankfurt had not been hit by the war. But there was an aftermath of the war. In the wake of the fighting, the foreign slave workers who had been shanghaied by the Nazis declared themselves free and were graduated to the status of "displaced persons"—DP's. Soon DP's by the tens and hundreds of thousands were on the move all over Germany. They wanted more than anything else to go home, but that took time, and meanwhile they needed food, shelter, fuel. Long since, the Germans had taught them, the hard way, to look out for themselves and to take what they needed where they could find it. The IG headquarters building stood open and inviting; by way of luxury it had a whole roof and walls, solid floors, and even glass in the windows. As many as ten thousand DP's made themselves at home in the IG building.

It was still cold, that Spring of 1945 in Germany. There was no fuel. But there were countless file cases stuffed with paper. The DP's started burning IG records to heat the building.

After the invasion by DP's came the expeditionary force of the Big Brass. As the most imposing structure in the whole region, the Farben building was quickly marked as permanent headquarters for what were to become the American occupying forces. The order came to clear the building. A master sergeant took charge of the cleaning operation and won a Bronze Star for the job he did. The procedure was simple. Furniture, file cases, papers—everything movable—were carted out and dumped in great piles.

The IG Farben investigators started quickly, but by the time they arrived they found papers in a thin layer spread over several acres of the pleasant grounds; papers were ankle deep in the rooms, knee deep in the halls, waist deep on some of the stairways.

It proved easier to lay hands on most of the top leaders of IG Farben than to make sense out of their records. Many of them lived in Frankfurt; others had hurried there from Berlin to wait for the American occupation. For important German industrialists it was a period of anxious guessing. They had little doubt that it was healthiest to get out of the path of the westward marching Russian armies. But whom to go to, the British or the Americans? From whom, in other words, could they expect the easiest, therefore the best, treatment? For whatever their judgment was worth, the bulk of the IG executives decided to try it the American way.

It looked to start with as if they had made a bad mistake. The important officials were rounded up and jailed to await interrogation. Half a year later there was some doubt as to whether or not they really had made such a bad mistake in judgment. And after more than a year, the issue was still very much in doubt. With the occupation of Germany in its second year, IG Farben was still not finished.

But at least the first months were trying for a group of men accustomed to rather different treatment. Among those jailed and questioned were *Geheimrat* Hermann Schmitz, successor to Carl Bosch as president of the IG and one of the great powers in the business affairs of the world; Dr. Max Ilgner, director of the Finance Department in title, actually one of the key organizers in IG and boss of the IG international spy ring; Dr. Georg von Schnitzler, IG's top salesman and front man in international affairs; and many others, including most of the IG directors.

Gradually, out of interrogations and the painfully pieced together records the story of IG Farben began to take shape. Some of the directors were tough and arrogant; some began to talk. Specially hidden, confidential files of paper began to turn up. A few were buried in gardens back of homes of the directors. A few were found among empty bottles in the wine cellar of a country inn.

The story as it emerged had none of the obvious horror of a Buchenwald, with its slaughter chambers and unburied heaps of corpses piled stinking on the ground when the coal supply ran out. The story of the IG was quite clean. It was, in fact, a success story. The leaders of IG Farben were sharp but respectable businessmen who had piled up great wealth by building the engine which drove the Nazi war machine along the road to Buchenwald.

Without IG Farben Hitler could never have gone to war.

Chemistry was the business of IG, but chemistry today ranges into many fields. IG had forty-three main products. Of these, twenty-eight were of primary concern to the Wehrmacht. Above all, IG found the way to cut across Germany's two biggest shortages, oil and rubber. IG produced all of Germany's synthetic rubber. It also produced all of Germany's lubricating oil and part of its synthetic gasoline.

As a matter of course, IG Farben manufactured the greatest bulk of German explosives. It turned out ninety per cent of the plastics. And it also pioneered the way for Germany in the field of light metals, again finding the short cuts across German shortage of raw material.

But production was only an end-product in IG Farben's design for war. Along with the rest of Germany's major combines and cartels, IG Farben in the truest sense planned World War II. Long before the Nazi Party had left the lunatic fringe of society, the industrialists were making preparations for war. The record now shows that IG took a leading part in the preparations.

For twelve years it was possible to argue over the reasons why Hitler was able to take power in Germany in 1933. The record is now clear on this point too. Hitler was pushed to the top, without support of a majority of the people, by a coalition of the heavy industry leaders and Junker militarists. IG Farben's part in the operation can now be told in the words of IG officials.

There is an English story dating from World War I. A field artillery piece was captured from the Germans by the English and brought back as a monument to the men who died capturing it. The name of the maker of the gun had been left on the name-plate. It was Vickers, the British arms maker.

Apparently that lesson from World War I was never learned. Britain and the United States fought in World War II against an enemy whom they had helped rearm. Even worse, they went to war with their own defenses neglected, as the result of arrangements made between their own big industrialists and the businessmen of the enemy. Here was IG Farben's greatest success. More than any other corporation IG sat at the center of a web of international cartel agreements. How cartel links, covering Europe and stretching across the Atlantic to the United States and Latin America, became a framework within which a war took shape is also part of the record of the investigation of IG Farben.

Spies—and spy scares—are an established part of world politics today. IG served the Nazi State by developing a new system of spies. The Farben spies were good because they were invisible. They were invisible because they belonged and could rightfully operate in a respectable manner: they were businessmen who picked up and transmitted vital information in the normal course of running their businesses. Other German concerns used the same device. IG Farben raised the technique to such a high point that its spy ring became a key weapon of both Army Intelligence and the Nazi Party.

For all these and other services, IG Farben was well paid. To each new country conquered by the Wehrmacht, IG sent representatives who started the work of salvage even as the battle was ending. From Norway to France, in Poland and Czechoslovakia, IG took over control of every chemical plant of importance. The seized plants were immediately set to

work producing for the Nazis to make them better able to conquer more countries in which more plants could be seized. Here, too, IG set a pattern which was followed by all the main banking and industrial concerns of Germany.

IG was paid off by the Nazis. Its account with the United Nations is another matter. That debt cannot be settled until IG Farben is wiped out of existence. The first Allied military directives made it look as if the final settlement would be a quick one. But it did not work out that way. IG Farben was not immediately wiped out. From the start there was a counter offensive aimed at keeping it alive. After more than a year of peace, the issue still hangs in the balance.

Hitler had only one chance of winning the war while the fighting went on: a split between the Allies, Great Britain and the United States against the Soviet Union. He lost that chance because the Allies held together. Now again a split is the main chance for IG Farben and the rest of the big German combines to stay alive. If IG Farben does live to build its strength again, it will be because it has been held out as a weapon for another war, a war the Nazis and their friends have never stopped wanting, the holy crusade against the East. Certainly if the issue were settled by plain war guilt, IG could not last a month.

The lessons of IG Farben are worth study. Evidently the fear of war did not leave the world as soon as the fighting stopped in World War II. If finding out how a war was made in the past will help prevent another war in the future, then IG Farben is the best case-study at hand. IG is a particularly good case because here, perhaps for the first time in history, a great war-making corporation was caught in the moment of defeat and all its workings were laid bare. Usually, the people who make a war are the ones who write about it.

Out of the story of how IG Farben developed comes the picture of the way in which a whole civilized nation gave itself over to fascism.

It is a sinister picture which comes too close to home for comfort. Some of the Nazis could be pushed out of mind as lunatics. There was nothing crazy about the leaders of IG Farben. Before the war, few would have called them criminals. They had the support and co-operation of partners throughout the world.

Above all, the story of IG Farben is the best illustration at hand of how international cartels and monopolies are operated to make war.

2
The Birth of IG

For the better part of six thousand years of recorded history, men built their material civilizations using the products of nature very much as they found them. They built with lumber and stone, wove cloth from cotton and wool. Even the metals—copper, bronze, iron—which determined the character of whole cultures were transformed from ore by quite simple methods.

In the course of a few generations, beginning with the first half of the nineteenth century, all this has been changed. Starting with ordinary coal it is possible to make perfumes and gasoline, dyes and synthetic rubber. The main ingredient of explosives can be drawn from the invisible air around us. Synthetic rubber can be made from petroleum and from alcohol as well as from coal. Using the same basic ingredients of coal, oil, air, and power, literally thousands of synthetic textiles and materials can be made.

The revolution which had its beginning here is as sweeping in its effects as the Industrial Revolution which followed the use of steam power from coal. The effects on all manu-

facturing are beyond calculation. But even more, the whole structure of politics and international diplomacy is changed. The kinds of power politics and high strategy which dominated international relations even up to World War II have been changed radically.

In World War I, it was possible for the coalition of powers headed by the British Empire to win by use of the old principle of blockade: oil and rubber were essential for war; Germany had no natural supplies of either oil or rubber; it was possible to cut her off from the countries of supply from raw material starvation as from any other cause.
by naval blockade. In the end Germany collapsed as much

Allied strategy for World War II was essentially the same. But the German reaction was totally different. This time, to the very end of six years of struggle, the Germans did not seriously lack any important raw material. This time they made their own—their own gasoline, their own rubber, their own synthetic cloth. They had coal in plenty, and they used all the craft and arts of organic chemistry to transform it into the things they needed.

The battle for strategic supply areas goes on—demonstrated by trouble in the undeveloped sections of the world from Iran to Indonesia. But now it is only a desperate struggle for advantages; control of strategic areas alone can no longer force a decision in major conflict.

It was Germany which showed the rest of the world how to make critical raw materials out of a sandbox and a pile of coal. And it was IG Farben which led the way for Germany. IG changed chemistry from pure research and commercial pill-rolling into a mammoth industry affecting every phase of civilization. Above all, it was IG which turned the science of new materials into the most powerful weapon of war.

The story of the growth of IG is also the story of the development of organic chemistry. A very considerable part of

the development of chemistry must be credited to IG Farben. Certainly every new step was turned by IG into both a source of rich profits and an addition to the military power of Germany.

In the last part of the eighteenth century, the foundations of all modern chemistry had been laid by such men as Lavoisier and Priestly and Gay-Lussac. These men, mainly French and English, turned chemistry from the mumbo-jumbo of the alchemists to a scientific examination of the materials of the earth. Hand in hand with the basic research went commercial developments required by the expanding Industrial Revolution. For example, by 1790 the Frenchman Leblanc had discovered a practical way to make carbonate of soda, the foundation of the huge artificial alkali industry essential to textiles and other major industries; and this discovery came scarcely ten years after Lavoisier had set the whole science on its feet by giving a rational account of combustion.

Although Frenchmen and Englishmen were the founders of chemical science as a whole, it was in Germany that the foundation of organic chemistry was laid. Organic chemistry means nothing more than the chemistry of carbon and its compounds. Carbon, the main ingredient of coal, and in fact of most things that are burnt for fuel, occurs in all things which live. Corresponding to the enormous profusion and complexity of living things, carbon appears in an almost infinite number of variations and combinations. Slight changes in the combination of materials which have essentially the same elements can make substances which are totally different in appearance and use. When investigators had the almost foolhardy courage to try to build up the materials of nature in the laboratory, they found that they could not only make synthetic materials which were the same as the products of nature but that sometimes they could make hitherto unknown substances which were improvements on nature.

One of the first of the German pioneers in what became in-

dustrial chemistry was Justus von Liebig. Liebig was born in Darmstadt in western Germany in 1803. His father was a drysalter and dealer in colors who himself had done some experimenting with his products. The son had shown great interest in chemistry as a school boy. He went through all the chemical texts he could find and at the age of fifteen was apprenticed for a year to an apothecary. It is said that Liebig lasted only a year as an apothecary's apprentice, having made a nuisance of himself with experimental explosions in the apothecary's back room.

Liebig studied at the Universities of Bonn and Erlangen. These were old centers of learning, in the medieval tradition of classical scholarship, properly representative of a country still split into feudal principalities where businessmen had to scramble for a foothold in an otherwise sleepy community of feudal soldiers, handicraftmen, and poor peasantry. There was no chemistry for Liebig to learn in Germany. He had to go to France. Afterwards he complained that the wordy influence of the romantic philosopher Schelling had cost him two years of study. In Paris, Liebig found what he wanted. He was able to learn from such founders of chemistry as Gay-Lussac.

In 1824, Liebig went back to Germany. He spent the rest of his life teaching other Germans to be chemists.

The bulk of Liebig's own work lay in the field of organic chemistry. Jointly with Woehler he published a famous paper on the analysis of oil of bitter almonds (benzaldehyde). It was Woehler who, in 1828, showed that urea could be made in the laboratory from evaporation of solutions of ammonium cyanate—without benefit of animal kidneys.

Liebig laid the basis for agricultural chemistry. He experimented with the chemistry of different foods and the many tion of German chemists.
chemical processes of life. But above all, he trained a genera-

One of Liebig's pupils, August Wilhelm von Hofmann, cut the beginning of the trail which led, through the making

of dyestuffs, to IG Farben. Hofmann, too, was a great teacher. He led his students into the field of coal tar. It was the research led and inspired by Hofmann which built IG.

Hofmann's first important teaching job was in England, where in 1845 he became the first director of the Royal College of Chemistry. Hofmann went back to the German universities in 1864, but not before one of his brightest young English proteges had touched off a small revolution in industrial history.

The young Englishman was William Henry Perkin. He was experimenting with a by-product of coal tar, aniline. He found that by treating aniline sulphate with bichromate of potash he could get a beautiful coloring material which he called mauve. The color material turned out to be a true dye: that is, it could be added to a textile and it would hold its color in spite of aging or washing or sunlight. For the first time, a synthetic dye had been discovered. The discovery was made in 1856; Perkin was only eighteen at the time. Within a generation there were literally hundreds of synthetic dyes, surpassing the old vegetable and mineral dyes in brilliance, variety, and cheapness. Within ten years the first small factories which later grew into IG Farben had been started in Germany. Perkin himself started a dye works but the industry did not take hold in England. It flourished in Germany.

In a true sense, the dye grew up at the cross-roads of the great textile and steel industries. Textiles had expanded hugely as the first direct result of the Industrial Revolution. With expansion of textile production came equal growth of the demand for dyes. At the same time, the growing iron industry made heavy demands on coal. Coal, in a nearly pure carbon form with the by-products driven off, was needed to reduce iron from its ores in the blast furnace. Coal tar was a left-over. It was, in fact, an unpleasant left-over, evil smelling and looking and hard to get rid of. The first efforts of chemists were simply to find ways of disposing of coal tar.

They found that it had to be, in effect, boiled off. They also learned that different parts of coal tar boiled off at different temperatures. And when the varieties of coal tar by-products were isolated it turned out that they would yield an almost infinite variety of further substances. It was Perkin's discovery, based on the teaching of Liebig and Hofmann, which enabled coal tar research and the by-products of iron-making to be turned to the supplying of dyes for textiles.

England made textiles and brought in dyestuffs from its empire all over the world: indigo boiled from the leaves of the indigo plant of the Far East, alizarin red from the madder root, scarlet dyes from cochineal and tin solutions. With English ships filling all the world's trade routes, there was no great need to make synthetic dyes.

Germany had coal and no empire. And so German scientists exploited the opening made by Perkin. In 1869, Graebe and Liebermann found a way to make an artificial alizarin from the coal tar product anthracene; Perkin received a patent for the same dye one day later than the Germans. In 1878, Bayer made a synthetic form of the king of dyes, indigo. Even a dye of the old Mediterranean world, preserved in the wrappings of Egyptian mummies—Tyrian purple which had once been squeezed laboriously from the juice of mollusks—was duplicated in the German laboratories. And the German synthetic dyes turned out to be better and cheaper than the products of nature.

Fifty years after Perkin's revolutionary discovery of mauve, in July, 1906, Carl Duisberg spoke at a dinner in honor of Perkin. Duisberg was the leader of the IG, the great German dye cartel. He paid tribute to Germany's English benefactor and gave some of the reasons for Germany's chemical superiority over England. England had a wealth of other industries, he said; Germany had specialized. Germans, he asserted, had a special talent for chemistry. But Duisberg failed to mention much of his story. He did not tell of the way

in which German chemistry had borrowed the work done in other nations and protected its own with a special patent system set up in 1877. And above all he did not tell of the way in which Germany, a nation without colonies and therefore without assured sources of raw materials, had turned to chemistry as a means of making raw materials. For Germany, synthetics were the wealth of the Indies.

At all stages of its history, IG Farben has paralleled the development of the whole German nation with striking closeness. Its very beginnings, long before the super-cartel had even been thought of, occurred just as Germany itself was developing into a unified nation. In 1863 the Hoechst chemical works were started with a total staff of five workers. And in 1865 the works at Ludwigshafen were started with a total of thirty employees. These tiny plants became the center of the entire empire of IG Farben.

It will be remembered that it was also in the 1860's that Bismarck took the major step which culminated in 1870 with the formation of one German State. In 1866, just as the infant German chemical industry was beginning to grow, Bismarck successfully led Prussia through the war with Hapsburg Austria making German unification under Prussian rule inevitable and paving the way for German leadership in Europe. Thus in the space of the same few years there was a beginning of both the economic and the political powers which were to make Germany the leading force of world aggression in the first half of the twentieth century.

Before Bismarck there was no Germany. Yet by 1900 Germany had climbed to parity with Great Britain in the world of power politics. Germany was ready to make a bid for colonial empire. Under Prussian leadership, the German Army was the strongest in the world. German steel-making capacity had overtaken that of Great Britain and Germany was ready to enter a race with England for naval supremacy as well.

Also by 1900, and in the same period of thirty or thirty-five years, the German chemical industry had grown from nothing to unchallenged world dominance. The works at Ludwigshafen, known as the Badische Anilin und Soda Fabrik, by 1875 had 885 workers and a capitalization of sixteen and a half million marks. By 1900 Ludwigshafen employed 6,700 workers; by 1914 the staff had grown to 11,000, and the works covered five hundred acres and a mile and a half of river front where the Neckar meets the Rhine.

The Hoechster Farbwerke kept pace. By 1880 it had grown to a point where it employed nearly 1,900 workers. By 1912 it employed 7,700 workers, including 380 trained chemists and engineers.

Needless to say, the expansion of the German chemical industry was a highly profitable process. The Ludwigshafen organization in both 1900 and 1910 declared dividends of about twenty-five per cent while Hoechst in 1910 declared a dividend of twenty-seven per cent.

The key to the great expansion of the German chemical industry is seen in the numbers of technicians employed. At the turn of the century, the six biggest German chemical works employed more than six hundred and fifty trained chemists and engineers. At the same time, in the entire British coal tar dye industry no more than thirty or forty chemists were employed.

The scientific chemical training inaugurated by Liebig and Hofmann had become an essential part of the whole chemical industry. The men trained in the best universities and research institutes automatically turned to the chemical works for jobs. The practical work done by the factories became an extension of the work done in the laboratory. And the best men and the most advanced work of the industry were turned back to universities to enrich further the process of research.

Research meant industrial progress. But research also led to strife within the German chemical industry. The products

of research were valuable trade secrets, well worth pirating. Protection from foreign competitors was given by the setting up of the German patent system in 1877. In fact, the German producers were able to use their patent system to squeeze secrets out of foreigners who were rash enough to apply for patents in Berlin. But their own internal strife was a more serious business.

In an effort to eliminate throat-cutting, a "Society for the Protection of the Interests of the Chemical Industry of Germany" was created in 1884. The Society wrote a report to the Imperial Government, setting forth in detail the kinds of industrial espionage then common. Workers were sent into plants under instructions from competitors to pick up secrets. There was widespread bribery and corruption in the sale of industrial secrets. Even professional men, engineers and chemists, sold their insiders' knowledge. The Society concluded that ". . . the only solution lies in statutory regulation, and in particular, through the extension of provisions for punishment."

Some anti-espionage regulations were in fact passed though the industry soon enough took steps to set its own house in order. And the experience gained in prying out other people's secrets proved useful in two world wars.

The answer to internal competition, and the way to greater concentration of control, was of course the building of cartels. The great apostle of cartels in the chemical field was Dr. Carl Duisberg.

Duisberg was a short, square-built German, full of energy and plans for organization, given to long and pompous speeches. He was the German combination of business operator and trained research man; his list of honorary degrees filled a substantial paragraph. As head of one of the biggest chemical concerns, the Elberfelder works at Leverkusen, he took the lead in setting up the cartel.

In part, cartelization in chemicals followed the usual pat-

tern: to maintain prices under the complete control of a small top group; to eliminate competition and gain the security of blocked-off markets; to concentrate control and make some gains in efficiency through larger scale production. But Duisberg was aiming higher. German steel had caught up with English steel production, a notable achievement. German chemistry had done much more; it had outstripped the world. Duisberg wanted nothing less than the consolidation of a world empire in chemicals.

In the years around 1900 Duisberg made many speeches and wrote many reports for the Imperial Government, strongly urging cartelization. In one statement, in 1902, he said that if the proper cartel were organized:

". . . the now existing domination of the German chemical industry, especially the dye industry, over the rest of the world would then, in my opinion, be assured."

The first major step was taken in 1904. Six major companies had emerged to dominate the whole field of chemicals in Germany. These were now organized into two major rings or cartels. One consisted of the great Ludwigshafen plant, Badische Anilin und Soda Fabrik; Duisberg's own concern, the Bayer Company of Leverkusen, and the AGFA Company of Berlin. In the United States today some aspirin tablets and photographic supplies still bear the names of Bayer and Agfa.

The second big ring centered in the Hoechst works, on the outskirts of Frankfurt-on-the-Main, and included the firm of Leopold Cassella & Company, with Kalle & Company of Biebrich swinging into the same system.

In both cartels, the main terms of agreement were similar. A quota system was set up. Profits were pooled and divided according to an agreed formula.

It was at this time that the term "IG" came into common use to describe the German dye cartel. As has been stated, IG stood for *Interessen Gemeinschaft* which means "Com-

munity of Interests"—one way of describing a cartel. There were, certainly, other major cartels in Germany at the time. But the dye trust had achieved world domination in its field. It was the most advanced specimen of cartel organization. It could claim for itself the simple designation of "IG," meaning "THE Cartel." Even after the separate firms making up the dye and chemical cartel were organized into a single company in December, 1925, the term "IG" was retained in the new monopoly: IG Farbenindustrie, Inc.

Dyestuffs had built the IG. The dye trade was then, and remains, the main line of production and richest source of profit. But IG was rapidly widening its scope. The hundreds of research chemists financed by IG were ceaselessly engaged in manipulations of countless derivatives of coal tar. Other sources of organic compounds were tried. It was a tireless process of burrowing along the trail of chemical combinations. Everything was tried, everything recorded, nothing forgotten.

IG took the lead in the development of photographic materials. The IG scientists developed a rich new line of drugs and pharmaceuticals. IG went into the production of heavy industrial chemicals. In the effort to find new synthetics as substitutes for rubber, oil, and Chilean nitrates, IG started extensive experiments in the handling of chemicals under high pressures and temperatures. Even then, ten years before the outbreak of World War I, the plants of IG were busily engaged with what would become major production problems of the great war.

The work in pharmaceuticals sponsored by IG was surely of much benefit to the health of mankind. Yet this is the very field which makes most clear the way in which the operations of the cartel work against the interests of people—in this case sick people—all over the world.

As in all fast developing fields, trade secrets are of the greatest importance in the chemical industry. The care with

which IG guarded its discoveries is duplicated in all countries. For example, Williams Haynes, in describing early American research in practical forms of rubber, wrote about a pair of American investigators:

"All these proceedings were deeply secret. No other chemist had been allowed within smelling distance of the laboratory. . . Like a couple of schoolgirls talking hog Latin, Marks and Oenslager gabbled glibly in chemical formulas, coining fancy names for their new-found accelerators. . . They purchased laboratory reagents in distant cities. . . When they came to buy regular supplies of chemical raw materials, they went through all the furtive maneouvers of a leading citizen in a dry State ordering a case of Scotch. They spared no pains to conceal the source and disguise the contents of shipments of raw materials."

Secrecy may be part of the normal conduct of business. But medicine is supposed to rise above the normal conduct of business. Germany was the center of the advance of bacteriology and the discovery of cures for disease, in the late nineteenth and early twentieth centuries. And a great part of the work done by the most illustrious German scientists was hidden in the laboratories of IG and used by IG first as a source of rich profit and secondly as a weapon in war.

Take the case of Paul Ehrlich. Ehrlich was the perfect example of the laboratory man, not concerned with business, endlessly on the trail of the cure of diseases. He was the discoverer of salvarsan, the 606th compound after a series of six hundred and five failures. Salvarsan, of course, was the cure for syphilis—what Paul de Kruif called "the magic bullet," first specific drug which knocked out a germ without injury to the human body.

But Ehrlich worked in a laboratory near Frankfurt, provided for him by IG. The IG patiently waited and continued to support him through the long series of unsuccessful experiments. Because when salvarsan was finally found, IG had a

complete monopoly on its production, the price on the nearly-magic drug was high. But even more important, when World War I began, all supplies of salvarsan were cut off from Great Britain and the United States. Treatment of syphilis was made more difficult. Other crucial drugs were also cut off. Anesthetics were a German monopoly too. Surgery in the United States and Britain was seriously hampered.

The cutting off of deliveries from the German drug monopoly was not just an accidental by-product of the blockade. It had been counted on by the leaders of IG as a weapon in war. Here was the true beginning of bacteriological warfare.

After World War I, IG made another major attempt to use a healing drug for political ends. Large parts of Africa were almost uninhabitable because of the dread disease—sleeping sickness—borne by the tsetse fly. IG developed what appeared to be a cure for sleeping sickness; it was called Bayer 205 or Germanin. Armed with Bayer 205, they approached the British, through medical channels. They made a fantastic proposal. Give us back African colonies, they said, and we will give you Bayer 205. The proposal fell through because: a) the British would not have it; b) the great French chemist Fourneau was able to duplicate the German synthesis; and c) the drug was not a complete success anyway.

Then there is the case of the sulfa drugs. Sulfanilamide and its related drugs rank with the greatest life-savers ever discovered. Thousands upon thousands of lives are now saved each year by the use of sulfa drugs. Yet it is highly probable that the use of sulfanilamide was delayed many years because it was held—and *concealed*—in the laboratories of IG.

In 1908 a student in Vienna named Paul Gelmo wrote his thesis on a new coal tar derivative called para-aminobenzine sulfonomide; this is what we call sulfanilamide. At that time, the men of the IG Bayer laboratories, under Dr. Heinrich Hoerlein, were doggedly and systematically trying out every

new compound both as dyes and as drugs or germ-killers. Anything might be useful; therefore they tried everything. It is reasonably certain that they tried out Paul Gelmo's chemical. It is all the more certain inasmuch as a year later, in 1909, Dr. Hoerlein obtained a patent on a brick-red dye, first of a series of new *sulfonomide* dyes. Bear in mind that the Bayer men customarily tried out new compounds *both* as dyes and as drugs. The trail moved even closer to public knowledge of the use of sulfa drugs when in 1913 a German named Eisenberg reported that chrysoidine, a brown dye closely related to sulfanilamide, destroyed certain bacteria. But at this point a sudden and inexplicable silence settled over the German laboratories.

In 1919 two Rockefeller Institute scientists in the United States, Drs. Heidelberger and Jacobs, made some independent progress on the trail of the sulfa drugs, but nothing was heard from Germany. Not until 1932 was the next step taken. In that year two IG men, Drs. Mietzsch and Klarer, took out a patent for IG on an orange-red dye which was a derivative of sulfanilamide. It was called a dye, it looked like just a dye, but, significantly, in America it was assigned to IG's *drug* outlet, the Winthrop Chemical Company. IG called the new drug-dye Streptozon and later Prontosil, and in 1933 a Dr. Foerster of Duesseldorf reported that with it he had cured a child of blood poisoning.

Now the pace of development quickened. A top IG scientist, Dr. Gerhard Domagk, was put in charge of Prontosil research. In February, 1935, he published a paper on the cure of disease with chemicals.

Great interest was stimulated in the new dyes which could be used as drugs. The French bacteriologist Levadidi asked for a sample of Prontosil for analysis. His request was refused; IG was still making a bid for a monopoly on the most powerful disease killers ever found. Levadidi went with his problem to Fourneau, the same man who had duplicated Bayer

205. Again Fourneau succeeded. He discovered that it was not Prontosil, the newly patented drug, which did the work, but actually its main constituent. This main constituent was nothing other than *sulfanilamide*, described by the Viennese student Gelmo as far back as 1908 and therefore public property by this time.

IG had been holding back from the public of the whole world a great life-saver—because it wanted a product which it could patent and hold exclusively. Now the game was up. By 1936 the sulfa drugs were world property in spite of the best efforts of IG. But it is difficult, and painful, to try to estimate the number of lives which might have been saved if sulfanilamide had not been buried in the laboratories of a vast monopoly which had been trying to pick its own most profitable time for granting new medicines to the public.

With World War I IG came of age.

It was in the middle of the war, in 1916, that the last step was taken to realize Duisberg's dream of one big cartel for all of German chemistry. Soon after the two rings had been formed in 1904, links were established between them. Sharp competition was avoided. For example, synthetic indigo had just gone into large scale production and was an especially profitable dye. The two cartels formed a marketing agreement in indigo. Under pressure of war production, the last obstacles were removed and the six big chemical concerns were organized into a single IG. Shortly afterwards, two smaller companies, Griesheim-Elektron and Farbwerk Muehlheim, were brought in, making the circle complete. The last remaining step, to merge the companies of the cartel into one single corporation, would not be taken until 1925.

More important, it was World War I which demonstrated IG's tremendous power as a war-maker and its great share in the direction of Germany. Chemistry as a whole came of age during the war. As Woodrow Wilson said, in 1919:

"The close relation between the manufacture of dyestuffs on the one hand and of explosives on the other, moreover, has given the industry an exceptional significance . . . German chemical industry, with which we will be brought into competition, was and may well be again a thoroughly knit monopoly, capable of exercising a competition of a peculiarly insidious and dangerous kind."

In a somewhat smaller way, all the things which made IG Farben the strongest prop of the Nazi State could be seen in operation during World War I. From the beginning, the IG scientists were well aware of the significance of their research for war purposes. As early as 1884, Victor Meyer described the skin-blistering effects of mustard gas. In 1887, Professor Baeyer gave lectures to the students of the University of Munich in which he referred to the military value of lachrymators—tear gas.

By the Hague Convention before World War I, gas warfare was supposedly outlawed. The IG prepared for a gas war anyway.

The first gas attack of the war was delivered in April, 1915, at Ypres. The tactical surprise achieved was complete. No other single blow came closer to breaking through the stalemate of trench warfare. It is even possible that if gas had been used less tentatively by the German High Command a quick victory could have been won. At the least, the Germans could have reached the channel ports. According to Major Victor Lefebure, a chemical liaison officer in the British Army during World War I, the German generals had to be prodded into gas warfare by the IG:

"The first hammer blow in the enemy chemical campaign was a two-party conspiracy, led by world-famous scientists and the powerful IG with the German army unconvinced but expectant, little more than a willing dupe."

IG's part in the development of chemical warfare was so great that the German Army was never forced to set up a

special chemical warfare service, as had to be done in all the Allied armies. IG took care of the whole gruesome business. The gases themselves were produced at the Hoechst, Agfa, and Leverkusen plants of IG. The preliminary research was done in the most respectable surroundings, as for example in the Kaiser Wilhelm Institute under the personal guidance of the Nobel Prize-winning chemist Haber, close associate of the top leadership of the IG. For the proper training of army personnel a gas school was set up at Leverkusen.

Gas was merely one specific weapon. The work of IG cut across the whole field of war production. In his memoirs General Ludendorff mentions asking the key leaders of industry, the men most responsible for production, to "join his train" in 1916. The two whom he invited were Krupp von Bohlen und Halbach, the steel magnate, and Carl Duisberg.

The whole field of explosives became IG business. Without the IG the German Army could hardly have fired a round. Even more important, and again a direct foreshadowing of IG's role in World War II, the miracle-workers of the IG laboratories were called on to find substitutes for scarce raw materials.

IG's two major assignments were to find synthetics which would take the place of rubber and Chilean nitrates. All European nations, of course, must import rubber. With German ports tightly shut by the British blockade, the rubber shortage in Germany became severe. The submarine *Deutschland* ran the blockade to America before the United States entered the war; it took home a cargo consisting in great part of rubber. In spite of all measures, however, German trucks at the end of World War I were running without tires.

Duisberg himself wrote in 1918:

"Of all the imported raw materials essential for war, we lacked rubber the most during the war." He described the extreme difficulties involved in finding a good synthetic rubber and then summarized the partial success achieved: ". . . We

are now in the position of producing 2000 tons annually, one-eighth of our peacetime requirements. . . The future will show whether we will be able . . . to compete with cheap natural rubber."

What the future did show was that Duisberg's IG, in another, larger-scale and far more mechanized war in which rubber had become an absolute essential, was able to keep the Wehrmacht entirely rubber-shod for the whole six years of the war.

Synthetic rubber was only a partial success in World War I. Nitrogen fixation, however, was an overwhelming success. Without it Germany might have collapsed not in four years but perhaps in one. Without nitrates there were no explosives. By far the greatest source of nitrates for the world was the natural deposits in Chile. A short cut was found by Fritz Haber, who devised a method for literally snatching nitrogen from the air around us. The Haber method was put into large-scale operation by the IG.

Again Carl Duisberg reports the success of the IG. Experiments to make explosives from the Haber process ammoniac, he said, ". . . were developed at the insistence of the explosives manufacturer Duttenhofer, who died in 1903, and who perceived as early as the turn of the century the danger in a coming war that Germany could be cut off from the Chilean nitrate supply, and thus from the most important material for the manufacture of munitions. The Badische ammoniac factory in Oppau was ready for production in 1914. . ."

Thus, even before 1914, IG was already being assigned the role of the organization whose business it was to see to it that Germany was ready to fight world wars.

Also at this early date, IG was developing its own special kind of war without guns—economic warfare.

Although it had never been difficult to see, World War I made painfully clear that a strong chemical industry was a weapon of war. Yet both England and the United States en-

tered World War I while chemical monopoly was still in German hands. The weakness of the British and American chemical industries was in large part the work of IG. This was highly profitable work for IG, but it was also political work.

As far back as the 1880's the aggressiveness of the German chemical industry was throwing its weight into the international political balance. The German dye makers had run British producers into the ground by a double-barreled use of patents. English patents filed in Germany were simply pirated by the Germans in collusion with their own Patent Office. On the other hand, German patents were not only honored in England, but the German producers, by refusing to issue licenses to the British, forced them to depend on importation of the German products. In short-range and purely economic terms, little harm was done to British industry—except to the hopeful makers of dyes. The textile industry was the great consumer of dyestuffs, and textiles completely overshadowed the chemical industry in importance; the textile manufacturers were interested simply in a reasonably cheap supply of dyes from any sources.

But the political implications were more important. In 1883 Joseph Chamberlain—father of Neville Chamberlain, himself the champion of an aggressive trade policy—pointed out that the policy of the German chemical industry was actually part of an economic attack which, if carried further, could ruin the basic industries of a nation. He declared that—

". . . under the present law it would have been possible, for instance, for the German inventor of the hot blast furnace, if he had chosen to refuse a license in England, to have destroyed almost the whole iron industry of this country and to carry the business bodily over to Germany. Although that did not happen in the case of the hot blast industry, it had actually happened in the manufacture of artificial colors connected with coal products. . ."

The budding American chemical industry was also blighted by the Germans in the years preceding World War I. One weapon used was price cutting. Over a period of ten years, from 1903 to 1913, the German producers sold salicylic acid, for example, for twenty-five per cent less in the United States than they did at home in Germany. The same was true of bromine, oxalic acid, aniline, and other products. A similar device used was "full-line forcing." That is, to obtain a particularly desirable product made by German firms, American dealers had to buy the full line of their products. American producers were thus frozen out.

When World War I began, it became apparent that the foreign agencies of IG could be used as the makings of a spy service. Following American entry into the war, the Alien Property Custodian seized the German firms and discovered that they had been sending back to Berlin detailed reports on practically every aspect of American business concerns. They had also used their American foothold to spread German propaganda. In both respects the IG was starting on a course which came to its zenith twenty years later.

At the close of World War I, IG had not reached its full strength and power, but it was already a major source of aggression. The British chemical liaison officer, Victor Lefebure, in his book, *The Riddle of the Rhine*, wrote:

"Here we have an organization, the IG, whose sinister prewar ramifications dominated the world by their hold on the supply of organic chemicals vital for peace and war. This organization functioned, in a sense, as the life blood of German offensive warfare. German sources tell us very little of the war activities and future significance of the IG. A veil of secrecy seems to be cast over the whole matter, but behind this veil must exist an acute realization of the value of the IG as a trump card for the future."

The facts could plainly enough be seen. But there were few to see them.

3
Nineteen Twenty-five

After November, 1918, the war was lost, the troops went home—and in the factories and workshops and laboratories of Germany another war was started.

The war had been lost, but IG and the steel mills of the Ruhr and all the rest of German industry remained. Under the economic leadership of Walther Rathenau much had been learned during World War I. It took six years, through the period of the Stinnes bubble and the inflation, to test and prove that knowledge. And then Germany, with its cartels and monopolies in the lead, was ready to start again with another bid for world power.

German industrialists had been trained in a hard school. They had started late. They had had to push and scramble for every foothold in world markets. And their resources were meager. They could not build in peace and quiet, protected by broad oceans with an undeveloped continent to draw on, as was the case in America.

As long as the expanding force of business drives ahead faster than markets can open up, the Germans will be eco-

nomic aggressors because they have most to gain from change. And economic aggression will break out periodically into war.

What German businessmen do, businessmen of all nations do as well. But the Germans do it harder. This is true of cartel building, industrial espionage, and sharp trading, the influence of Big Business in government and the conscious use of war to gain economic ends. The picture of IG Farben and the rest of German industry is not just a picture of Germany. It is a picture of Big Business as a whole, but Big Business operating under extreme tension where the ordinary lines of trade do not offer enough hope of profit and growth.

The military and industrial leaders of Germany came out of one world war entirely prepared to start thinking about another. They had reason to believe that they had made a good showing on the first try. They thought they knew where they had gone wrong, and they were ready to correct their mistakes.

The military men concentrated on the problems of the proper techniques to force a quick decision, to avoid two front fighting, to develop break-throughs and encirclement, and they eventually came out with the blueprint for *Blitzkrieg*. For the businessmen two problems were more important than anything else. First of all there was the matter of self-sufficiency. Germany had cracked up for lack of critical raw materials. It became above all the job of IG Farben to make Germany self-sufficient; it was the old question of chemistry instead of colonies. Secondly, there had to be still greater consolidation and tighter control over the whole economy. Germany had led the world in cartel building before World War I. In the course of the war, it had achieved even more concentration. The lessons learned here were carried forward; they led in only fifteen years to fascism.

The war-time co-ordinator of the German economy had been Walther Rathenau. Rathenau was one of the more re-

markable figures of Germany during World War I. The son of the founder of the giant electric concern A.E.G. (the German General Electric Company), he himself became the chairman of the electric trust. As a second generation industrialist, Rathenau had some of the rough edges knocked off, was more given to philosophic speculation on the future of business than to pushing from scratch for a place in the sun.

When Rathenau was first put in charge of the German war economy, he ran head on into opposition from the established German bureaucracy. He was cubby-holed in one small office in the War Office. By the end of the war his organization covered whole blocks of buildings.

Rathenau tackled one industry at a time. He started with iron and steel, moved to metals as a whole, then to chemicals, and then to leather and rubber. For each industry a complete cartel was created. In the case of steel this was relatively easy; the major producers were already in cartels and the outsiders could be forced in. In chemicals it was even easier. As we have seen before, the chemical industry was well able to take care of its own consolidation and in 1916 the complete IG was formed. In fact, Rathenau was able to draw some of his leading assistants from the IG. One of his chief aides in charge of organizational matters was Hermann Schmitz, one of the coming men of the IG. Ultimately Schmitz succeeded Carl Duisberg as president of IG Farben and was still the number one man in IG at the end of World War II.

Where an industry had not been cartelized and the individual producers were still inclined to go their own ways, Rathenau forced them to organize. Supplies of raw materials were rigidly controlled, prices were fixed, and production quotas established.

To get the maximum output, Rathenau started designating particular plants for special jobs which had to be done. This led to inspection of books, the breaking down of secrecy, and the handling of whole sections of industry as a unit regardless

of plant lines, thereby paving the way for even further cartelization after the war.

Rathenau himself was convinced that Germany would never again move away from the war system he had helped to shape. And while he had some notions about inheritance laws and speculators which his associates thought peculiar, he was a "sound" businessman. In spite of the tight centralization of the German war economy, business was still in the hands of businessmen. Rathenau's chief assistants were industrial leaders like Hermann Schmitz of the dye trust rather than civil servants or army officers. However, the old-fashioned kind of competition was out. Rathenau wrote shortly after World War I:

"We are confronted by significant upheavals in economic structure and thought. The war, which since in its nature was political, was an event of world revolutionary character, [which] shattered the economic and social order of Europe. . . From the ruins will arise neither a Communist State nor a system allowing free play to the economic forces. In enterprise the individual will not be given greater latitude; on the other hand, individualistic activity will be consciously accorded a part in an economic structure working for Society as a whole. . ."

What Rathenau is talking about, under a light mist of verbiage, is a completely cartelized State. Given further development with a strong dose of police brutality and creation of a phony "race science," it is a Nazi State.

Shrewd business leaders in later years praised Rathenau for his foresight. But he himself did not live to observe the outcome of his predictions. He was courageous, or rash, enough to take responsible posts in the new Weimar Republic. He was first Minister for Reconstruction and then Foreign Minister. As such he became a target for the terrorist gangs of free-booters, fore-runners of Hitler's Storm Troops, who roamed Germany after World War I, and he was assassinated.

Further consolidation of German industry was on the way. Out of the dislocation of a world war, large ideas were emerging. Perhaps the largest ideas, and the ones which came nearest to immediate fulfillment, were those dreamed up by a swashbuckling industrial pirate named Hugo Stinnes. The later growth of IG Farben was strongly marked by the course which Stinnes set.

Stinnes in his lifetime did well enough in Germany. But he would probably have enjoyed himself more in the America of the late nineteenth century. He was the ideal man to speculate in the building of railroads to span an entire continent. He would have appreciated Jay Gould's attempt to get a corner on the whole gold market. Stinnes himself aimed at nothing less than getting a corner on the whole of Germany.

Hugo Stinnes was possessed of tremendous energy and apparently unlimited ambition. His family had been prominent in the coal industry of the Ruhr for several generations. Stinnes started on the road to expansion in the 1890's by buying a group of coal mines. Next he formed the German-Luxembourg Mining and Smelting Company, starting with a dozen coal and iron mines, a few smelters and furnaces, and a capital of one million marks. Within ten years the new Stinnes company had run its capital up to seventy-five million marks and controlled a chain of mines and steel works throughout the Rhineland and Westphalia.

Stinnes' second big undertaking, and again it was started before 1900 and before Stinnes himself was thirty years old, was the Rhenish-Westphalian Electric Works. This concern furnished gas, electricity, and water for twenty-five Ruhr communities. Stinnes bought up municipal officials with gifts of stock and directorships and soon controlled the bulk of the street car and narrow gauge railroads in the Ruhr. At the same time he expanded his family's fleet of Rhine river barges into the greatest on the Rhine, the Elbe, and the Oder.

During the war years Stinnes emerged as an international

figure. He became one of the leaders in Rathenau's Raw Material Bureau in Berlin and a close personal adviser to Ludendorff. A generation in advance of his times, Stinnes set the pattern for Hitler's handling of the economies of conquered nations. He directed the taking over of mining and steel making in occupied portions of France and Belgium; he directed removal of machinery, and he was responsible for sending thousands of workers from the occupied territory to work in German industry. Stinnes never lost his taste for annexation. To the last, he looked upon the coal and iron industries of Belgium and France as his own territory and made at least three attempts after the war to organize companies which would have swallowed up the formerly occupied properties. He would have thoroughly appreciated the skill with which IG Farben picked up foreign loot during World War II.

With the end of World War I, Stinnes' acquisitions increased to a point where they could hardly be counted. It was estimated that his empire finally included more than fifteen hundred different firms, with the number of workers who were under his ultimate control approaching a million. Nothing was too far afield, too big or too small, for Stinnes' appetite. He swallowed up hotels and restaurants, newspapers, lumber mills and forests, steamship lines and shipyards. His interests spread to Austria, Sweden, Denmark, Italy, Spain, Brazil, and finally the Dutch East Indies.

In the fall of 1921 Stinnes was able to put together what was even for him the trust to end all trusts. It was called the Siemens-Rheinelbe-Schuchert Union. He had already engineered a merger of major coal and iron concerns to make the Rheinelbe Union. Siemens-Schuchert represented the only considerable rival of the German General Electric Company, the A.E.G., in the electric field. Siemens-Schuchert was a great horizontal trust; that is, it included many firms in the same field. But it was weak in that it did not control its own supplies

of fuel and raw materials. Stinnes brought about the merger of Siemens-Schuchert and Rheinelbe. He then controlled a trust which was both horizontal and vertical, on a scale far beyond anything ever before seen in Germany, an absolutely self-sufficient empire—a worthy forerunner of IG.

Stinnes was more than an awe-inspiring spectacle for other German industrial operators. His methods had a lasting influence. And because he operated in great haste and therefore with little concealment, his methods are easy to see.

It is no secret that Big Business is deep in politics the world over. Stinnes saw the need for political control to protect his economic empire and jumped into politics with both feet. He ran for, and was elected to, the Reichstag. Much more important, he made a systematic bid for control of public opinion. He started buying up newspapers so fast that it is even possible that at one time he controlled most of the German press. To fortify the position of his papers he bought into lumber mills, paper-pulp works, and printing houses.

Setting a course followed by IG Farben and all of German Big Business, Stinnes threw the support of his papers behind monarchist and ultra-nationalist groups. In the Berlin municipal elections of 1921, for example, the Stinnes press was credited with having caused the Socialists and Democrats to lose 100,000 votes to the Right Wing parties.

In his effect on German foreign policy Stinnes also paved the way for a whole generation of German business—including above all IG Farben. Toward the end of World War I, Stinnes is credited with having been one of the high ranking advisers who held out longest against seeking peace in any form. To the end he hoped for permanent annexation of the Belgian coal and iron industries. After the war he had agents in all the Central European countries and owned newspapers in Prague, Budapest, and Vienna; the object, of course, was aggressive support of German influence and German trade.

Stinnes died in 1924. Within a year his empire was being

parceled out by a receivership set up by Hjalmar Schacht as head of the Reichsbank. The Stinnes empire turned out to have been the Stinnes bubble.

In very general terms, it may be said (without explaining anything) that Stinnes' holdings broke up after his death because they were too unwieldy and too dispersed for his sons to handle. Or it could be said that the fatal weakness was lack of working capital, so that the collapse followed refusal of credit to Stinnes' sons by the big German banks late in 1924. Actually, neither the rise nor the fall of Hugo Stinnes makes sense except in relation to the German inflation. It was the inflation which made possible the growth of Stinnes from merely another big-time juggler of industrial fortunes into a colossus. Equally, it was the inflation as much as the example of Stinnes which made possible the final consolidations of IG Farben and the other German monopolies in preparation for the all-out assault against the rest of the world.

The inflation in Germany after the first war was one of the strange economic phenomena of our times. It caused as much misery for the German people as the war itself. It provided economists with a field for dozens of books of explanation. And it dealt a fatal blow to small business and the German middle classes, leaving the great trusts with a clear field. Hitler, with his appeal to a dislocated middle class—his invention of a crazy mixture of scape-goats, demagogic attacks on big capitalism, and bitter fighting with the working class parties on the streets as well as in the beer halls—was probably more a product of the inflation than, directly, of World War I itself.

In a formal sense the inflation started with the very beginning of the war. On July 31, 1914, the Reichsbank suspended conversion of notes to gold. Before August was over, the volume of notes in circulation had jumped two billion marks. Before the inflation was over, nine years later, there were

ninety-three trillion paper marks in circulation. This is the kind of figure which the mind cannot properly grasp, like calculations connected with atomic power. It may reveal more to say that by the beginning of 1923, the U. S. dollar was quoted at sixty thousand German marks. Before the inflation, a worker might have spent a year earning from fifteen hundred to two thousand marks: this was now worth perhaps three cents in American money, not even enough for a package of chewing gum. A man with an income of twenty thousand marks had been accounted prosperous: this whole year's income was now worth thirty or thirty-five cents, or just about enough for two packs of cigarettes.

People literally did not know if a week's work would buy food for one meal. Housewives went to market carrying currency in baskets. Fixed incomes of the middle classes were wiped out. Money had become a loathsome, cancerous thing, in growing heaps with less and less value. More than twenty years later, when American troops went through Germany in the closing days of World War II, they found stacks of the old inflation currency still preserved as mementos of a bitter period. Some Americans looked at million mark notes and thought they had found the secret currency reserves of the Nazi State.

The inflation meant the ruin of the middle classes and the impoverishment of all wage earners, but it also meant the wiping out of all internal debt. For men like the leaders of IG or the Ruhr steel magnates, the inflation brought two tremendous gains. They could produce goods, meet current costs of production in worthless currency, and sell cheaply abroad; German foreign trade was thereby quickly re-established. And they could pay off all debts and meet all taxes (based on the old price level) virtually for nothing. German industry emerged from the inflation greatly strengthened. Industry's gains were quite tangible; naturally they did not spring out of the air. They were realized in part at

the expense of the standard of living of workers whose wages could not keep pace with prices. Industrialists profited to an even greater extent through the wiping out of insurance policies, mortgage bonds, and fixed incomes generally.

The inflation started in a complex of circumstances. In part it was the result of financing the war by borrowing. Only six per cent of the cost of the war was met by taxation, and the unfunded debt reached thirty-nine billion marks. But the amount of debt was not out of proportion to the debt in other countries. Schacht and the other financial leaders threw the whole blame onto reparations and an unfavorable balance of payments. Yet in the end it was seen that German reparations payments were mainly in kind, rather than in money, and their main effect was to build up German foreign trade.

The real causes of the inflation were clear enough in the statements of industrial leaders and in the minds of most of the German people. Sir Philip Dawson, a member of the British Parliament and an official observer in Germany, wrote in 1925:

"After constantly renewed conversations with the leading financial, industrial, and agricultural magnates in every great German center, it is impossible to doubt that they had one and all made a calculated, co-ordinated effort to ruin the credit of their country in order to secure discharge from their war obligations.

"Indeed, Stinnes—for one—was openly held by the mass of the German people to have played in this matter especially for his own hand, and to have been responsible for the fall of the mark and resultant position of Germany."

Most German businessmen would have denied this, at least publicly. But Stinnes was a man in too great a hurry to give time and care to camouflage. In November, 1922, he delivered a speech entitled "How to Save Germany" before the German Economic Council. Among many other things he said:

"If you gentlemen charge me, and the men who think as

I do, with opposing stabilization of the mark at any price, you are absolutely right. But at the same time I tell you that the hopes and the interests of all of us are identical. We are merely differently situated in respect to our ability to defend ourselves against our present evils. . ."

Stinnes and "the men who thought as he did" had engaged in direct speculation in the mark. They purchased foreign currency with loans made from the Reichsbank, drove the mark still further down, and paid off the loans for a fraction of the original value. The more conservative business groups did their share for the inflation by running off their own currency, called *Notgeld*, in huge amounts with no backing.

By the fall of 1923 the objectives of the inflation had been accomplished. In November a new currency, called the *Rentenmark*, was issued and tightly controlled by the Reichsbank under Schacht. The *Rentenmark*, supported in effect by a mortgage on all German land, was held at a stable rate of exchange with foreign currencies. The inflation was over.

Out of the chaos of inflation and the Stinnes bubble, a stronger German industrial machine emerged, ready to do battle with the world. Stinnes was dead, but his works were far from forgotten. Rather, they were put on a sounder and more manageable basis. Out of the pieces of the Stinnes super-trust, Siemens-Rheinelbe-Schuchert, a new steel trust was formed. This was the huge Vereinigte Stahlwerke, dominating all of the German steel production and the European steel cartel as well. In the chemical field, the IG was ready to demonstrate in its own quiet and much more respectable way that Stinnes was really only a small-time operator.

As a result of World War I, dye production was begun in other countries, to become a permanent source of competition for the IG. In all other respects, the IG finished the war stronger than before.

Krupp and the other steel makers of the Ruhr had become

identified with war production. At least for the record, the steel men now could only make such harmless articles as plowshares and stainless steel dentures. There was no such limitation on production by the IG. Only a few cranks and chemical specialists talked about the dangers of war production by the chemical industry.

IG emerged untouched from the occupation period following World War I. They even managed to evade serious inspection. Lieutenant McConnel of the U. S. Navy tried to get a look at IG's synthetic ammonia plant at Oppau. He reported:

". . . the Germans displayed a polite but sullen attitude. They seemed willing to afford the opportunity of a cursory inspection, but strongly objected to a detailed examination. On the third day of the visit the writer was informed that his presence had become a source of serious objection and that if his examination were prolonged a formal complaint would be submitted to the Peace Conference."

The Germans themselves had been quite realistic about the chemical industry when they occupied parts of France during World War I. The town of Chaulny was occupied by German troops. Here stood a famous old chemical plant where Gay-Lussac had worked with sulphuric acid, where Courtois discovered iodine, and where plate glass was first made. The Germans removed all useful equipment and machinery. Then, before their final retreat, they destroyed the entire works, boiler by boiler, brick by brick.

Along technical lines, the IG had advanced greatly during the war. They had developed a new line of carbide chemistry. They had made invaluable progress toward finding a satisfactory synthetic rubber. They now had a wealth of experience with the handling of high pressures, which made possible the synthesis of oil from coal, a discovery which in a few years was to shift the entire balance of economic power of the world. And the perfected Haber process for fixation of

nitrogen left the IG the cock of the walk for the production of artificial fertilizers—or explosives.

IG's relations with the German government were of the best. For a few tense years, German industrialists stood in terror of a sweeping revolution at home. But the leaders of the IG quickly found that they were fully appreciated by the officials of the Social Democratic Weimar Republic. At least one of the German delegates to the Versailles peace conference was an IG director.

A series of special concessions was made by the government to the IG. A loan was advanced for work with nitrogen fixation. The dye plants were allowed to pay no taxes for a period of ten years; thus the IG was given full governmental support in its drive to recover lost markets for dyestuffs. The IG received preferential treatment in obtaining coal, basic raw material which was needed desperately all over Europe. And finally, the government sponsored organization of an over-all nitrogen syndicate, under IG leadership, the Stickstoff Syndikat.

Now the IG had only to put its own house in order by taking the last steps along the Stinnes road to complete consolidation. For there were still points of friction remaining among the leading members of the IG. Even Duisberg, the man who talked co-operation every time he opened his mouth in public, had his troubles. Duisberg's own Leverkusen works was a modern and technically advanced plant, but in some respects the Ludwigshafen works were in the lead. In charge at Ludwigshafen was Professor Carl Bosch, an outstanding scientist as well as a business leader. He had done highly important engineering work with the Haber process and, as a result, Ludwigshafen had a monopoly within the IG on nitrogen fixation. Duisberg wanted to cut into the lucrative nitrogen field. He was held back by the rules of his own IG; no individual company could increase its capitalization (which would have been required for any major new line of production) with-

out permission of the whole IG. Bosch of Ludwigshafen was not giving permission for anyone else to move in on nitrogen fixation. Bosch did finally turn the nitrogen process over to the whole IG, but only after he found he had to go to the other members for support in financing his large-scale experiments in conversion of coal into gasoline.

Then, too, it was found by this time that all of the big plants in the IG were making a complete line of dyestuffs. There were obvious and wasteful duplications in this, yet as long as there was any chance that the IG might break up, no individual concern was willing to loosen its hold on the rich dye field.

Above all, there was the wastefulness of maintaining half a dozen separate sales organizations at a time when IG's clear duty to itself and its Fatherland was to penetrate all foreign markets. During the happy days of the inflation this had not been of any importance. As an IG official, Paul Haefliger, admitted to interrogators in the Summer of 1945, the cost price of products sold during the inflation mattered very little:

". . . because the production price was being paid in continuously inflating currency, whereas, for instance, the important dyestuff export yielded for the most part stable money in good foreign currency which when transferred to Germany represented mark accounts quite out of proportion to production costs, so that on paper big profits could be shown even with a much smaller dyestuff expert volume than prewar. . ."

But after the stabilization of the mark in 1923 put an end to the profitable traffic in foreign currencies, Haefliger said the IG people—

". . . could no longer afford the luxury of having each of them a world-wide sales organization which, in spite of all regulations and collectual (sic) agreements at home, were in fact competing with each other in getting orders."

Everything pointed to the need for integration of the IG into a single concern. Negotiations were completed late in 1925: by agreement of all members of the IG, all of the other concerns were absorbed into the Ludwigshafen firm, Badische Anilin und Soda Fabrik, and the name was changed to the IG Farbenindustrie A.G. The process of consolidation, begun in 1904 with the formation of the two rings and carried further in 1916 with the creation of the single IG, was now complete. IG Farben was ready for world conquest.

1925 was a year of paradox in Germany. It was a year in which there seemed to be a return to peacetime normalcy following the nightmare of post-war inflation. Yet it was also a year in the course of which first decisive steps were taken to build a new German war machine.

The Social Democrats remained the strongest political group in the Weimar Republic, but the Junker of Junkers, Field Marshal Paul von Hindenburg, was elected to the Presidency of the Republic.

Defense Minister Otto Gessler observed that if the German General Staff were organized as a corporation it would be legal.

Out of the pieces of the Stinnes empire, Vereinigte Stahlwerke was organized.

The Rheinmetall-Borsig Company started operations in its first gun factory.

And IG Farbenindustrie was organized as a single monopoly.

In a New Year's Day address, one Ruhr magnate declared:

"Germany has now shown to herself and to the rest of the world that she still knows her way back to greatness and forward to the fulfillment of her age-old mission, in spite of pacifistic clamor and half-hearted and un-German reluctance from which serious drawbacks originated once more a few years ago."

4
The Saviour

"A new type of state socialism is appearing, totally different from that which any of us have dreamed or thought of. Private economic initiative and the private capitalist economy will not be crippled, but will be regimented from the points of view of state socialism in that capital will be concentrated in the national economy and will be directed outwards with uniform impetus. . .

". . . This change in capitalism demands with natural peremptoriness a reconstruction of a former counterpoise, international socialism. It breaks this up into *national socialism* whose election promise will be: work rather than phrases."

The prophecy quoted above was written in 1916 by a German chemist named Werner Daitz, employed as a plant manager by the IG. Daitz's writings were distributed widely by the publicity department of IG Farben after Hitler was in power, perhaps as proof of orthodoxy and as an indication that German chemistry had been Nazi all the time.

Of course, the IG did not invent national socialism. Neither did Adolph Hitler. The creed of naziism was developed as a

weapon in the course of a bitter internal struggle in Germany. The struggle was won by Hitler with powerful support from German Big Business, including IG Farben. Without the support of IG and the rest of the German monopolies and cartels, Hitler could not have won his political fight. And the German industrialists could see that without Hitler their empires would crumble.

Between 1933 and the beginning of World War II, it was hard to convince many people of the crimes of the Hitler regime. After the war started, there was a sudden shift. It was now possible to talk in the most respectable quarters of the Nazis' barbarism. A new theory took firm root. It was all in the German blood. The Nazis won out because most Germans were barbaric at heart. Their very chromosomes went goose-stepping through their blood vessels.

Actually, this last theory represented a final victory for Hitler's ideas of race. By now it is dangerously clear that fascism can be a menace anywhere; conversely, some of the most powerful opposition to fascism developed in Germany itself. In fact, the extreme brutality of the Nazis arose at least in part from the fact that the opposition was so strong.

A heavy price has been paid for the historical lessons of the past fifteen years; they should be all the more thoroughly learned on that account. One of the clearest lessons of the recent past is the fact that neither heroes nor villains are made by blood alone. J. S. Bach was a German, but there are also Germans who are tone deaf. Himmler was a German, but there were some Germans who died as bravely as men can, fighting for human freedom.

The first year following the end of World War II in Europe saw sweeping changes in the governments of at least a dozen nations covering a total population of more than two hundred million people. The ending of World War I also saw great social ferment and upheaval. The center of the turmoil was the defeated country, Germany.

For the owners of German heavy industry, the years following World War I were filled with fear and danger. Specifically and bluntly, they feared what the workers in their plants would do; they feared a communist revolution.

The straws were blowing in the wind even before the war ended. The Imperial German armies had knocked out their Eastern enemies. The Treaty of Brest-Litovsk was forced on the new Soviet government of Russia. The terms were at least as harsh as any laid down hardly a year later at Versailles. Besides paying huge reparations, Russia lost thirty-two per cent of its agricultural land, thirty-four per cent of its population. The treaty took from Russia fifty-four per cent of its industry and eighty-nine per cent of its coal mines. There was complete German control of Poland, Lithuania, Latvia, and Estonia, and there were puppet governments in Finland, the Ukraine, and Georgia.

The Brest-Litovsk Treaty nurtured deep and lasting hatred in Russia. It blackened German imperialism throughout the world. But, surprisingly, there was a strong reaction against it in the German homeland itself. It may fairly be said to have weakened German will to continue the war. The treaty was denounced in the Reichstag. Strikes were called in protest against it. Hitler himself recorded that, years later, while making inflammatory speeches against the Versailles Treaty, he would hear cries from the crowd of:

"What about Brest-Litovsk?"

In the days immediately following the armistice of November, 1918, workers in factories and mills all over Germany simply declared themselves in charge and fired the ownership. This happened in plants of the IG in the Rhineland; the plant managers only returned to their posts after British troops entered the area and gave them protection.

The same protection was given, and in a fully conscious way, by the French Army. The French General Hirschauer announced as soon as he crossed the Rhine:

"This is clear: no more Soviets or foolishness of that sort!"

Many stories have been written of the free-booting gangs of young officers of the Kaiser's Army which terrorized Germany following the war. Heinrich Hauser who fought in one of the gangs, the Moerker Volunteer Corps, has told the story of a pitched battle in the town of Halle. Hauser and his fellows were besieged in a prison. Their opposition were armed workers who had taken over the huge Leuna works of the IG.

". . . above the prison hospital the warden's daughter played the piano; she kept tirelessly running the same scale as if to drown out the screams of the starving. . .

". . . we burned the rotten straw of our beds in the yard, and found it full of vermin and cartridges. The cartridges exploded in the fire, and the bullets splattered in all direc-

". . . outside the walls was the dark city with the thousands tions, while we flung ourselves flat, laughing.

of workmen of the Leuna Plant who were besieging us, but inside the prison were soldiers; that cold winter night they lay flat on their stomachs in the yard, taking cover behind new graves, waiting for the prisoners to break out. I was not with them, but I heard the shots, and I saw the dead men with their shaven heads and striped uniforms. Half an hour later we went to a cabaret across the street from the prison. There were oysters and champagne and a peroxide soubrette who sang, 'You made me what I am today—I hope you're satisfied!' "

The first wave of revolution in Germany was put down. By 1923 all armed conflict had ceased. But the focus of conflict had merely shifted to a struggle in the elections for parliamentary control. All the elements of the fight remained. More than any other country in the world, Germany represented a cross section of all the classes known to enter into current social conflict.

On the extreme Right, there still remained firmly rooted vestiges of feudalism. This was particularly the case in northeastern Germany, main center of the Junker estates. The Junkers had received a reprieve when the debts on their estates were liquidated during the inflation. As for the Prussian officer corps, true sons of the Junker families, they retained their place of honor through all changes in the German government.

In western Germany, in the smoky factory towns of the Rhineland and the Ruhr, the industrial leaders were as firmly entrenched as ever. History was full of their struggle with the Junkers. In moments of greatest danger from the Left, however, they made common cause with their old enemies.

Where there were factories there were also organized labor and Left Wing political parties. Throughout the whole period from World War I until Hitler became chancellor in 1933, the Social Democrats remained the largest party of the Left. The Weimar Constitution was the creation of the Social Democracy. In the 1919 elections the Social Democrats received more than eleven million votes. The next largest bloc of votes, cast for the Catholic Center, totaled only five million.

By 1924, the political situation began to show marked changes. In that year's elections for the Reichstag the Social Democratic vote fell to only a little more than six million. Nearly four million (3.7 million) Left Wing voters had chosen to support the Communist Party. A Right Wing party, the German Nationalists, had made the biggest gains of all, from 2.7 million in 1919 to 5.8 million in 1924. The first years after World War I had been anxious ones for both German aristocrats and business leaders. The party in power, the Social Democrats, had proclaimed a program of nationalization of industry. But in a few years it was clear that the danger from the Social Democrats was slight. No industries had been taken over. In the worst crises leaders of the extreme Left Wing had been killed by the police of the Social

Democratic state. With the quick revival of business by the middle 1920's, the industrialists could make a political comeback through their chosen parties, like the German Nationalists and the German People's Party. They could at least counter-balance the Left Wing vote in the Reichstag, while the Presidency of Germany was won and retained by Field Marshal von Hindenburg, the picked candidate of an alliance of Junkers and industrialists.

By 1930 still more violent shifts had taken place. Germany had suffered its share of the evil effects of the world economic crisis. More than a third of the working population was jobless. The parties most clearly identified with Big Business, like the German Nationalists, went into a disastrous decline. Their vote was cut by more than half. Both Social Democrats and Communists made gains. The thinking of the Left Wing had become deeply embedded in German life. It showed itself in the theater, in novels, in all the arts. A powerful and bitter satire on capitalist society, The *Three-Penny Opera,* ran for three years in Berlin. When the Nazis burned books and purged all the arts they were not just kicking Jews out of jobs and turning Germany to the contemplation of picture postcards. They were fighting a major political battle.

It was said that Lenin in earlier years thought more of the chances of a Socialist victory in Germany than in Russia. To an observer in Germany around 1930 it might well have seemed that a socialist revolution was in sight.

But a new force in German politics was revealed in the 1930 elections. For the first time, Adolph Hitler and his Nazi Party made a strong showing. Nearly six and one half million votes were cast for Hitler's candidates; one hundred and seven brown-shirted Nazis took their places in the Reichstag on the extreme Right. Within three years Hitler was installed in power, active Social Democrats and Communists were hunted fugitives, and the war machine was rolling at full speed.

In the thirty-one years between 1914 and 1945 the ancient practices of murder were raised to the level of mass production. The number of dead in the two most devastating wars of history probably reached one hundred million. Whole cities and sections of countries with the accumulated culture of centuries were totally destroyed. Yet, in the entire period, the most horrible story of all was that of Adolph Hitler and his Nazis—the National-Socialist German Workers' Party.

The story of Hitler has already been told many times. More volumes will have to be written before it will be possible to understand fully how in the midst of the twentieth century Hitler was able to restore all the worst aspects of the barbarism of the ages, how this Nazi barbarism was able to grip an entire civilized people, and how the great and honorable of the world found it possible to meet and deal with Hitler on equal terms of normal intercourse.

A few of the details of Hitler's incredible rise may be repeated here. As a young man before World War I, he lived in the municipal flop houses of Vienna; in America he would have been known as a skid-row bum. Go down to Main Street in Los Angeles, or Howard Street in San Francisco, or the flop houses of West Madison in Chicago and you will see his counterpart. He was bitter and frustrated, ill at ease with other men, with vague pretensions as an artist and a meager talent; he earned a few pennies making picture postcards and acquired a vast capacity for hatred.

During the war he was a soldier. In the American Army he would have been called "eager." To judge from a few letters which have been preserved, he seemed to like the bloody business.

In the chaos of post-war Germany Hitler found his starting point. Unerringly, his instincts led him into the service of the German ultra-nationalists and reactionaries. He went to work, probably for the first time in his life: he became a stool-pigeon for the German Army. It was his job to spy on what

organized German reaction recognized as its worst enemy—the radical labor movement. He was a very obscure spy and so the political parties he was sent to work in were also obscure. The party which he took over and which became eventually the all-powerful Nazi Party had at the time only seven members.

From the beginning Hitler's party had powerful support. General von Ludendorff lent his prestige to Hitler's attempted *Putsch* in Munich in 1923. After the failure of the *Putsch,* Hitler was jailed for a short time. In the prison of Landsberg he was shown special consideration by Bavarian officials. And financial support was given by several steel magnates of the Ruhr, notably Kirdorff and Thyssen.

For his behind-the-scenes supporters Hitler presented a counter-threat to the Socialists and Communists. His brown-shirted Storm Troopers started a long series of street brawls, particularly with the Communists.

To the voters, the Nazis presented a different and more complicated appeal. For those who were the shocked and insecure survivors of war, Hitler presented pageantry and uniforms, the ritual and discipline of a semi-military organization. This was an expensive form of political agitation and because of it Hitler was always dependent on heavy financial contributions. To a bewildered and embittered middle class which came out of the inflation threatened with the loss of even their respectability, Hitler offered an ancient target for hatred—the Jew. For strongly nationalistic Germans, Hitler offered foreign excuses for all of Germany's troubles: the evil sprang from the Versailles Treaty and the loss of colonies. Finally, to complete a fully-rounded demagogic appeal, Hitler introduced into his program an element of attack on Big Business; this last was a concession to the deep-rooted notions of socialism in Germany. Hitler's Big Business supporters did not seem alarmed by this attack. The events after 1933 proved them right.

After the depression closed in on Germany in 1929, Hitler's program proved to be a shrewdly concocted mixture. He gained strength in each election. The Nazis reached a high point in July, 1932: they received 13.7 million votes. The Social Democrats, next highest, received only eight million. In the Reichstag the Nazis had won three hundred and twenty seats (out of six hundred and seventy). Only one hundred and thirty-three went to the Social Democrats, eight-nine to the Communists.

The Nazis were on the very edge of complete power. And then a reaction set in.

The crazy hodge-podge of the Nazi program had made its greatest appeal to the most unstable groups in German society. The twisted mind of Adolph Hitler, with its fantastic notions of blood-mysteries and fate, made its deepest impression on the most twisted and insecure of his listeners. Among such people, interest—and votes—could be lost as quickly as they were won. Furthermore, although a common front of anti-Nazis was not made, those who perceived what Hitler might mean grew alarmed. At a distance, the corporate, all-powerful state of Italian Fascism might have sounded interesting; worship of militarism and the open preaching of revenge, rearmament, and war appealed to many Germans. But as the Nazis grew stronger they also came under close general inspection. The Brownshirts were seen for what they were: gross, sadistic thugs organized into political gangs.

The Nazi Party went into a decline more rapid than its rise. Another general election was held in November, 1932. The Nazi vote dropped from nearly fourteen million to eleven million. From three hundred and twenty Reichstag seats they declined to one hundred and ninety-six. The Social Democrats and the Communists together held two hundred and twenty-one seats.

With loss of popular support, contributions of money fell

off even more sharply. Nazi Party morale sagged. Hitler had come a long way from the Vienna municipal flop house, but he seemed to be at the end of the road now. It looked as if the Nazis were through.

Goebbels, the Nazi propagandist and Hitler's second lieutenant, wrote a surprisingly frank description of the situation in the Nazi Party in the period immediately after the November elections. The following quotations are excerpts from his diary for December, 1932, which he allowed to be published in 1935:

"Deep depression throughout the organization. One feels so worn out; one longs for nothing but a few weeks' escape from the whole business. . ."

"Phone call from Dr. Ley: the situation in the party is getting worse from hour to hour."

"The year 1932 has brought us eternal ill luck. . . The past was sad and the future looks dark and gloomy; all chance and hopes have quite disappeared."

"For hours, the leader paces up and down the room in the hotel. It is obvious that he is thinking very hard. . . Suddenly he stops and says: 'If the party once falls to pieces, I shall shoot myself without more ado.' A dreadful threat and most depressing."

Depression was the keynote. In truth there was more than enough to depress Hitler and his supporters. Worst of all, the most dreaded enemies, the Communists, continued to grow steadily stronger. They had never gained as spectacularly as the Nazis but they had shown continuous growth since 1924. By the end of 1932 they had drawn nearly even with the Social Democrats as the political leaders of the German labor movement: they received six million votes as against a little more than seven million for the Social Democrats. The combined Social Democrat and Communist vote of thirteen million was considerably above the Nazis.

And yet—within a few months Hitler was presented with

the Chancellorship. Democracy died quickly and violently in Germany. At the crucial moment Hitler received backing more powerful than he had ever dared hope for. The industrial and financial leaders of Germany, with IG Farben in the lead, closed ranks and gave Hitler their full support.

It is no secret that Big Business in all countries has fought organized labor both economically and politically. There was nothing mysterious in the fact that German businessmen fought labor. Hugo Stinnes in the midst of his most ambitious consolidations found time to harangue German labor to abandon its eight-hour day and sweat out a daily ten hours.

Hjalmar Schacht was a conservative sort of businessman during the 1920's. He was the head of the Reichsbank, the central bank of Germany; he was known as the man who had stabilized the mark and ended inflation. In those days it would have been hard to imagine that Schacht would some day have to stand trial before an international tribunal, charged with war crimes.

Schacht, too, argued against the eight-hour day. In a book called *The End of Reparations,* published in 1931 as an appeal to Englishmen and Americans, he virtually asked for support from businessmen of the rest of the world in fighting German socialism. He fought against social insurance because, he said, it weakened the moral fiber; his arguments could have been taken from Republican oratory in the United Sates during the first years of the Roosevelt administration.

Business leaders were equally clear in support of a rabid German nationalism. The leading organ for German expansion abroad was *Der Alldeutsche Verband,* the Pan-German Association. Its official aim was "to revive German national consciousness, to support 'Germanism abroad' and to further effectively an energetic representation of German interests in Europe and overseas, particularly an efficient colonial policy." Big Business was a main prop of the Pan-German

Association; the official history of the Association published in 1920 was sponsored by the Federation of German Industry. Schacht summed up for his colleagues when he said:

"For German industry the colonies, like foreign plants, represented hopes for the future, a possible escape from the ever more difficult conditions of investment and production at home."

The most aggressive parts of the Nazi program were supported by the business community. Again Schacht may fairly be taken as a spokesman. The Versailles Treaty he dismissed curtly, saying:

"What is called the peace treaty of Versailles is no treaty and it has not brought peace." And, more menacingly,

". . . Germany today may stand helpless before this treaty; its protests against it will keep the world breathless until justice and morality once again determine the course of human evolution."

Even the Hitler idea of a master-race was included in Schacht's kind of "justice and morality" which would "again determine the course of human evolution." Concerning the town of Memel he wrote, in his book for Anglo-American consumption in 1931:

"The overwhelmingly German territory of Memel was allowed, against its will, to fall completely under Lithuanian domination. *Consider what it means when parts of the highly civilized and cultivated German people fall under domination of a little branch of the human race, which, however much one may respect it, clearly stands far behind in culture and civilization." (My italics.—R.S.)*

Yet, similar as his program was to theirs, Hitler could not immediately win the full support of all of German business. A virulent Jew-baiter like General Ludendorff wanted to use Hitler as a means to establish himself, Ludendorff, as a military dictator. Industrialists like Kirdorff and Thyssen had also picked Hitler as their man. But for important parts of Ger-

man business there were serious doubts about Hitler, at least in the earlier years. It was not easy to forget that Hitler had lived in flop houses and had been a petty spy for the Army. The Nazi Storm Troopers were rowdies whose beer hall antics were distasteful to men of substance.

As in so many other respects, IG Farben set the pattern in the field of politics. As early as 1925, Carl Duisberg declaimed in a speech to the central organization of German industry, the Reichsverband der Deutschen Industrie:

"Be united, united, united! This should be the uninterrupted call to the parties in the . . . Reichstag. . . We hope that our words of today will work, and will find the strong man who will finally bring everyone under one umbrella . . . for he [the strong man] is always necessary for us Germans, as we have seen in the case of Bismarck."

In another speech Duisberg threw in another two cents' worth for dictatorship saying:

"If Germany is again to be great, all classes of our people must come to the realization that leaders are necessary who can act without concern for the caprices of the masses . . . it is to be hoped that there will be found in Germany the necessary number of such personalities who will be the leaders of that nation. Only then will she rise from deepest misery to her former greatness."

Duisberg also made it clear that IG would throw its weight into the fight against such signs of decadence as higher wages or shorter hours or social insurance. In another of his 1925 speeches he said:

". . . there is no doubt that the German economy can only exist and fulfill its duties, if the burdens of salaries, wages, taxes, freights, and—not least—impositions for social security, which it must carry are limited. . .

". . . German trade unions . . . must from now on hold as their primary duty giving consideration together with employers to increasing production . . . then the wage and salary

question [will not be] of exclusive importance as it unfortunately still is today. . ."

But IG did not rush to support the Nazis, even though in the long run it turned out that all of the objectives proposed by Duisberg were realized under Hitler. The IG did not go all-out in support of any single party or political leader. In a canny way, IG supported several parties; whichever won, IG would have friends at court.

Reporting directly to the two top men of the IG, Drs. Bosch and Duisberg, was a small and secret Political Committee. Each of four men on this committee was responsible for a link from IG to one political party: Drs. Kalle and Hasslacher worked, respectively, in the German People's Party and the German National Party; those two were generally the most popular political parties in business circles. Drs. Hummel and Lammers were responsible for two other conservative groups: the German Democratic Party and the Catholic Center.

Thus IG assured itself of representation along a broad front on the Right Wing of German politics. According to testimony on IG operations given by Baron von Schnitzler, the idea ". . . that IG owing to its great public importance should have certain links with the different leading political parties originated with the late Dr. Duisberg." Von Schnitzler further testified that IG made judicious use of hard cash in trying to influence elections; he estimated that each election for the Reichstag cost IG in the neighborhood of 400,000 marks.

By 1930 it was clear that the Nazis, in spite of unsavory appearances, would bear watching. During 1931 and 1932, IG made several secret contributions to the Nazi war chest. Some of the younger men in the IG leadership were assigned to maintain connections with the Nazis. One of these men was Max Ilgner, a nephew of Hermann Schmitz—the same Schmitz who was Rathenau's associate during World War I and who

was the president of IG during World War II. Ilgner was young, able, boundlessly energetic and ambitious. It was he who established IG's international spy ring. He early made contact with the Nazi leadership. During interrogation by American investigators in 1945, Ilgner complained that the Nazi Funk (a war criminal tried at Nuremberg) had obtained money from his department in 1931 on false pretenses; other Nazis were shaking down other departments of IG at exactly the same time and for the same purposes.

Even closer ties were maintained by an IG man named Gattineau. Gattineau had been the personal secretary first of Duisberg, then of Bosch. He was also in charge of IG's press relations; in this capacity he met Hitler and Goebbels. Through Gattineau's maneuvers, Hermann Schmitz was made an honorary member of the Reichstag after Hitler took over.

But all these relations with the Nazis were maintained merely as a way of hedging IG's political bets. IG's first choice was the more respectable type of reactionary, like Bruening. It was under the conservative governments from 1930 to 1932 that IG felt most comfortably at home.

The top men of IG avoided taking official government jobs themselves. For example, Schmitz himself several times refused to accept Bruening's offer to create for him the new office of "Commissar of German Industry." This was in line with a policy laid down by Duisberg: to stay clear of open government ties, but to exert pressure in secret conferences. A liberal German commentator, Helmut Wickel, wrote in 1932 that:

"Quite according to Duisberg's wishes things today [1931-32] are no longer decided in the Reichstag, but in irresponsible councils of industrialists, of whom Schmitz is the most important and influential."

Nevertheless IG did send its second-flight leaders into the government. A member of the Board of Directors, Professor Warmbold, became Minister of Economics under Bruening.

Previously Professor Moldenhauer had been in the government. But Schmitz himself acted as a close adviser to the Chancellor; for example, he accompanied Bruening to London in 1931 to take part in international discussions.

There was only one defect in the system of political control through Bruening and the old-line conservative parties: Germany was still a democracy and it took votes to stay in office. The old-line parties of the Right Wing were losing votes rapidly. Hitler was vulgar, uncouth, thoroughly unpleasant, long-winded, and perhaps a little unbalanced. But among all the ultra-nationalists and reactionaries he was the one best able to win votes.

When even Hitler's organization started to lose ground in the fall of 1932, the upper circles of German Big Business were confronted by a most serious crisis.

An astonishingly frank picture of what Germany's business leaders were thinking about in the critical days of 1932 is given in a series of letters which circulated privately as a sort of advisory service under the title "Letters to Leaders" (*Fuehrer Briefe*). Ever since 1918, Big Business had lived in the shadow of socialism and the nationalization of industry. Business had quickly taken the measure of the Social Democrats; for fourteen years the Social Democrats had remained the dominant party in Germany without effecting the slightest change in the position of Big Business. The Right Wing parties in the Reichstag could ward off any threats. But now Germany was gripped by a deep economic depression. The Right Wing parties like the German National and German People's parties faded badly. The Social Democrats were being replaced by the Communists. And there was every reason to believe that the Communists meant business. If now Hitler's Nazis were allowed to disintegrate, the game was up for the German monopolies and cartels. The situation was summarized in one of the "Letters to Leaders" (for September, 1932) as follows:

"The process of the transition which we are undergoing at present, because the economic crisis destroys these achievements [i.e., the gains made by the Social Democrats], passes through the stage of acute danger that, with the disappearance of these achievements, the mechanism of disrupting the working class which is based upon these achievements will cease to operate, with the result that the working class will begin to turn in the direction of communism and the bourgeois rule will be faced with the necessity of setting up a military dictatorship. This stage would mark the beginning of the phase of the incurable sickness of bourgeois rule. As the old sluice mechanism [i.e., drawing off of working class resentment by minor concessions] can no longer be sufficiently restored, the only possible means of saving bourgeois rule from this abyss is to effect the splitting of the working class and its tying to the state apparatus by other and more direct means. Herein lie the positive possibilities and the tasks of National Socialism."

Hitler was the only choice. He was given the complete backing of German industry and finance. With that backing he quickly established a blood-thirsty fascist state.

The men of IG, of course, took a leading part in the critical negotiations which resulted in making Hitler Chancellor of Germany. During Hitler's twelve years in power there were rumored accounts of the final meetings. Finally, in the summer of 1945, Baron Georg von Schnitzler wrote for his American interrogators the story of the historic evening in the course of which Hitler received the decisive support of the German business leaders. Von Schnitzler was one of the half-dozen most important men in the IG, chief of the IG sales department and generally a front-man for state occasions. It was early in 1933, he wrote, that:

". . . four members of the Vorstand [managing directors] of I. G. Farben including Dr. Bosch, the head of the Vorstand, and myself were asked by the office of the President of the

Reichstag to attend a meeting in his house. . . . I went to the meeting which was attended by about 20 persons who I believe were mostly leading industrialists from the Ruhr."

Among the men whom Von Schnitzler listed as being present were Schacht, Krupp von Bohlen, and Albert Vogler, the leader of the big steel trust, Vereinigte Stahlwerke. According to Von Schnitzler:

". . . Dr. Schacht acted as a kind of host. While I had expected the appearance of Goering, Hitler entered the room, shook hands with everybody and took a seat at [the head] of the table. In a long speech he talked mainly about the danger of Communism over which he pretended that he had just won a decisive victory.

". . . Krupp von Bohlen thanked Hitler for his speech. After Hitler had left the room, Dr. Schacht proposed to the meeting the raising of an election fund of . . . RM 3,000,000 . . ."

The money was given. Von Schnitzler talked about the matter with Bosch. He says that ". . . Dr. Bosch did . . . not make any remark to my report, but shrugged his shoulders." As befitted its great size, IG Farben contributed ten per cent of the whole fund.

Now Hitler could move with utmost vigor. The Nazi Party treasury was full; the Brownshirt thugs were on the loose. On the 27th of February, 1933, the Nazis themselves set fire to the Reichstag. This was proclaimed as the work of the "Reds." With Nazi Storm Troopers sworn in as special police, tens of thousands of anti-fascists of all stripes were beaten, arrested, and even murdered.

The way was cleared for the March, 1933, elections. Hitler had plenty of money. He had backing in the most respectable business circles and therefore in most government quarters. The opposition was at least partly terrorized. When the March elections were over the Nazis had gained six million votes. In the space of a few months the remaining minority parties

in the Reichstag were banned and the trade unions were broken.

The Nazi victory was complete. German industry could set to work in earnest on war preparations.

5
Arms by Night

In 1918 Germany was exhausted and defeated. In 1923 Germany was in chaos as the result of inflation. By 1931 Germany had so far recovered that a writer for the American National Industrial Conference Board was able to say: "The products of German industries are sold throughout the world; the industrial equipment has been thoroughly organized; the currency has safely been placed on the gold basis; the foreign trade has increased at an unparalleled rate."

German recovery was indeed astonishing. It made Germany once more a full-scale menace to the peace of the world. And, to increase the danger, a great deal of the recovery had been based directly on the re-establishment of war industries and the rebuilding of a military machine. It can fairly be said that the entire period from the end of World War I to the entry of Hitler as Chancellor was dominated by the German effort to rearm in the face of the Versailles Treaty.

It is possible—in fact it is probable—that the bulk of the German people did not know that they were rearming and

preparing for war. But some Germans did know exactly what they were doing. And those Germans, unfortunately for the many tens of millions of people who had to die in World War II, were the ones who counted when the decisions were made.

Carl Duisberg, the head of IG Farben, was one of those who knew best what was going on. He was well aware of the pressures within Germany which forced it toward expansion. He knew the danger of war which lay ahead, and he and IG Farben were in the lead in the preparation for anything that might come. The situation had to be handled with great care and secrecy. As Duisberg himself said to a group of newspapermen: ". . . before the war we frequently trumpeted our might and our importance far too loud in the world, and thus evoked the envy of the whole world. Now that a large part of that which we have created has been taken from us, directly or indirectly, we must now in our poverty be particularly careful to say as little as possible."

But careful as Duisberg was, he could not entirely strip his public statements of the overtones of thunder of a war which was in the making. In one of his speeches before the central council of German industry he let slip the following statement of warlike faith:

"Gentlemen! You may believe me when I say that nobody willingly admits the weakness of his country. Yet nevertheless I consider myself duty-bound to tell everyone at all times, at home and abroad: Let us admit it, war is impossible for Germany. We are disarmed. . . But back to deeds. Gentlemen! Germany was made great and mighty by her deeds in peace. The whole world knew her, and the whole world must come to know her again. We must reconstruct. . . Let us work!"

Dr. Duisberg and his colleagues did go to work, and with great success. In only a few years they no longer had to admit that war was impossible for Germany.

Under the terms of the Versailles Treaty Germany was

allowed a standing army of 100,000 men. To supply this small army only a handful of German factories were allowed to produce military equipment. For the first few years after the signing of the treaty it was necessary for war-minded Junkers and militarists to work in complete secrecy to begin the process of rearmament.

The first step in paving the way for a new army was to save the good name of the army which had just been defeated. If a new army was to be built in the darkness of night, the glory of German arms must be preserved. The officer caste must still be respected. To preserve hope, the aura of invincibility must never be lost. And thus grew up the legend that the German Army had not really been beaten in the field.

Even before the war was over the Junker generals had prepared the ground for the "stab in the back" alibi which became a theme song for German war-makers. In realistic terms, the German High Command knew that the war was lost after the failure of the great Spring offensives of 1918. In August, 1918, Ludendorff declared in the Crown Council that the war could not be won. Shortly afterwards, Crown Prince Rupprecht, who commanded one of the three army groups, wrote that Germany must quickly make peace to avoid a complete disaster. In September, Ludendorff and Hindenburg went directly to the Kaiser; they demanded that a request for an armistice go to the Americans. And in the first days of October Hindenburg repeated the request of the Army for an armistice in a letter to the Reich Chancellor.

But having convinced the civilian authorities that the war was lost and a quick end must be sought, the generals pulled back and played a coy game. Late in October Ludendorff was making strong statements about the necessity of fighting to a bitter end and the dishonor of an army breaking off before completely beaten. The civilians were acting on the declared judgment of the generals, but the conduct of armistice negotiations was left entirely in civilian hands. In the final set-

tlement of armistice terms only one high-ranking soldier, General von Winterfeldt, went along as a liaison officer. In his memoirs written after the war, Prince Max of Baden was able to say:

"Our prevailing feeling was one of relief that at least the *Army* would not have to wait on Foch."

The army of 100,000 could not provide places for all the young officers, sons of Junker families, who wanted nothing more than a chance to prove that they had been stabbed in the back and that their army was after all invincible. But many of them did find places, and kept alive the function of their class, in the Free Corps which were organized to put down the revolutionary German industrial workers. Heinrich Hauser, who had been a Junker cadet himself, tells how his Free Corps was organized:

"We were a group of young and middle-aged officers. . . Our gatherings took place secretly and in civilian dress, for the city was under the rule of the Workers' and Soldiers' Council.

". . . One man, a U-boat commander, had, like many others, refrained from surrendering his boat to England. It was sunk in shallow water somewhere in the Baltic. It was quite intact and fully equipped; a man would have only to go down in a diving suit to bring it to the surface. The U-boat commander proposed (and we lads were quite ready to follow him) that we continue the war with England on our own account. . ."

But there was work closer at hand. Between December, 1918, and April, 1919, Hauser reports, his company took part in the capture of at least six cities from the revolutionary Spartacists. In the process they regained the life of mercenaries. Hauser wrote that in the captured castle of Brunswick—

". . . I slept in the Princess of Brunswick's yellow marble bathtub, and all my men wore heavy silk shirts embroidered with the Brunswick arms; they were made of the castle curtains.

"When we took Merseburg, we were quartered in a coffin factory. Each soldier set up a coffin for a bed, and a child's coffin beside it for his knapsack. . ."

Later the Free Corps were somewhat centralized into a "Black Militia" which was still a loosely-joined skeleton organization at the time when Hitler announced the return to general conscription. Out of the Free Corps and Black Militia came the leaders of the mass army of the Nazis. Free Corps officers soldiered all over the world, leaving their imprint on most of the armies of South America and fully preserving the German military tradition. And to show that Germany was no place for pacifists and defeatists, the young killers of the free-booting organizations assassinated men like Erzberger and Rathenau. The latter were identified as civilian leaders who gave up the war.

In a few years, semi-military organizations became more open. The veterans' organization, the *Stahlhelm,* maintained military discipline. The Nazi Storm Troopers had uniforms and weapons and extensive practice in street fighting against Jews and "Reds."

The regular army of 100,000, the Reichswehr, proved conveniently flexible. If the draft called for one man by the common name of Heinrich Mueller, ten others by the same name might be called up and trained as well. By maintaining rotation of the 100,000 it was possible to train key non-coms and officers for the full-scale army under Hitler.

The German pacifist Carl Mertens estimated that as early as 1930 Germany had 374,000 trained soldiers under arms at one time. There were 99,000 in the regular Reichswehr; 110,000 military police, border guards, and railroad guards; 150,000 in the paramilitary outfits like the *Stahlhelm* and the Nazi Storm Troops; and at least 15,000 civilians attached to the Reichswehr in jobs which in other countries were done by soldiers.

Most important of all, the nerve center of the German

Army was preserved intact. In several forms the General Staff, ultimate citadel of Junkerdom, was kept alive. Officially, the General Staff had been abolished by the terms of Versailles. But the Weimar Republic was permitted a Ministry of Defense. And within the Ministry of Defense there was organized a "General Troops Office." There was never a clear description of the official duties of this office, but a senior officer of the General Staff, General von Seeckt, was called in to be its first chief. For several years the members of the office were primarily recruited from the old General Staff.

Under the Republic there was also considerable enlargement of the Potsdam Reich Archives "to simplify the study of the World War (I)." The Potsdam Archives staff also consisted largely of General Staff officers. It later developed that these officers were already busily planning campaigns for a second world war.

In spite of governmental aid, the reviving General Staff still needed money. A private business organization, called "The German Military Policy and Military Science Company," was formed by General von Schleicher. The concern was free to obtain large contributions from nationalist-minded industrial leaders. One of the German cabinet ministers, Otto Gessler, had pointed out: "There is no clause in the Peace Treaty which forbids us to reconstitute the General Staff in the form of a corporation with limited liability."

After World War II, the General Staff was again abolished. It may be a little frightening to observe that throughout Germany today the army veteran is still given a place of honor and that in the British Zone the Wehrmacht organization is being broken up only slowly and under pressure.

With the building of secret armies went the secret production of armaments. At the Nuremberg trials of the Nazi war criminals, evidence was produced which demonstrated that

German production of weapons had begun almost before the ink was dry on the Versailles Treaty. The Krupp Steel Works were supposedly restricted to production of such harmless items as typewriters and plows. As early as 1920, the German government gave to Krupp a loan amounting to forty-eight million dollars which was used for "maintenance of armament technique in the Reich's service." The forty-eight million dollars was transmitted with great care and secrecy by way of banks in Berlin and Amsterdam.

Another of the Nuremberg defendants, Grand Admiral Eric Raeder, admitted that Germany had started to build submarines shortly after World War I. By the terms of the Anglo-German Naval Treaty of 1935, Germany was again allowed to produce U-boats. Significantly the first U-boat was publicly commissioned just eleven days after the signing of the treaty. It had evidently been built with a burst of speed which would put to shame all other shipyards in the world. Actually, as Raeder testified, submarines were being built for the German Navy at least as far back as 1924, through a shadow firm in Holland.

In the early years after World War I much of the German military reconstruction was carried on through agents in foreign countries. In the field of aviation, Dornier set up a firm in Switzerland. Heinkel set up a shadow concern in Sweden. In spite of the already great fear and hatred of Soviet Russia, the Junkers Company established a Russian agency, although this step was bitterly criticized in the Reichstag on the grounds that no planes were coming back to Germany and the Russians were merely profiting from German designs. In addition to the submarines which Admiral Raeder admitted were built for Germany in Holland, at least one submarine was built in Spain.

But war production went on even within Germany itself. In 1943 Dr. Karl Waninger made a speech in Germany about the work his firm, Rheinmetall-Borsig, had done for rearma-

ment. Waninger described how Rheinmetall-Borsig opened an office in Berlin, "disguised as a transfer office" but actually used to direct the production of artillery. The office was denounced to the Inter-Allied Military Control Commission but never discovered. In 1922 it moved to Duesseldorf where, Waninger said, it continued "under the very eyes of the French occupation authorities." An artillery range was established in a deserted part of the Lueneburger moor and finally: ". . . a new and small gun factory was set up and started work in 1925, despite all sorts of difficulties. The first artillery order actually carried out by Rheinmetall after 1918 was destined for the cruisers *Koenigsberg, Karlsruhe, Koeln, Leipzig* and *Nuernberg*. We fulfilled this task to the complete satisfaction of the German Navy, at the same time creating a precedent in the building of triple turrets in Germany. . ."

In spite of all difficulties, the ingenious manufacturers found ways of producing all the weapons which the General Staff needed for maneuvers in developing the *Blitzkrieg* theory of warfare. As has been said, airplanes were produced in foreign countries. Pilots were trained in gliders. Guns of all calibers were made secretly in Germany. Tanks were forbidden, but a few armored cars were allowed and these were converted into experimental tanks.

Finally, the whole of German war production was coordinated, long before Hitler, by the Ministry of Defense. The Ministry co-operated with the Association of German Industry in drawing up an industrial mobilization plan which gave each producer an idea of how much he would be ordered to make after industrial mobilization day. Also before Hitler, the government gave direct subsidies to encourage production in industries essential to war: steel, light metals, aviation engines.

Of course rearmament could not be kept completely secret. Rumors kept coming out of Germany. In 1925 a man named Walter Bullerjahn was tried in secret and sentenced to twenty-

five years in jail. It developed later that he had been accused of revealing the progress of rearmament. In Hamburg, in 1928, there was a mysterious explosion which killed eleven people; the belief gained strength that the explosion had occurred in a poison gas works. And Carl von Ossietzky, the pacifist editor, was convicted of treason for having revealed war secrets in his journal. The war secrets related to secret rearming.

Eventually, much more than rumors came out of Germany. The secret of German rearmament became the kind of open secret which is preserved only by common agreement. By 1929, thirteen countries, including France, China, Japan, Spain, and Belgium, reported to the League of Nations that Germany was their chief foreign source of arms and munitions. Cleverness and tremendous determination went into German rearmament, but the job could not have been accomplished by Germans alone. There had to be at least tolerance, and sometimes support, in the world outside.

From evidence produced in the hearings of the U. S. Senate Committee (under Senator Nye) which investigated the munitions industry, it is clear that ranking American officials were only able to ignore German rearmament by turning their heads. The committee reported that in a meeting which included the then Secretary of Commerce Herbert Hoover and U. S. delegates to the Geneva Arms Trade Conference of 1925—

". . . Mr. Dulles [of the State Department] stated that notwithstanding the fact that it was known that Germany was exporting arms and munitions, it was not possible from a diplomatic standpoint to mention Germany or any of the Central Powers in this connection *since they were supposed to abide by the treaties which put an end to the World War.*"

In the same hearings there is a quotation from a report by Colonel Simons, of the Du Pont Company, of conversations which he had at the State Department in 1925:

"It was called to Mr. Dulles' attention that in the event of American firms refusing to build a mill [for gun powder] that the Turks would probably secure German aid in this matter. Mr. Dulles said he was well aware of this and that he was also aware that powder and other munitions were continually shipped out of Germany with the connivance of the Allies, since the resulting sales of munitions swelled the reparations fund."

Other material from the files of the Du Pont Company showed that as early as 1924 the Germans were already the chief competitors of the Du Pont smokeless power division in Europe, running ahead of the Italian and French producers. Evidently the Germans had been welcomed back to the ring of arms producers. The contagiousness of arms production is well known. If German rearmament caused jitters in some of the other European nations, this was of little concern to the arms producers of those nations: it was good business. The U. S. Senate Committee's report on the munitions industry cited Colonel Taylor of Du Pont as saying that ". . . a German-English group were attempting to control the military supplies in Europe with a view to large profits through the future rearmament of the European nations which was destined to take place."

When German war production finally hit its full stride under Hitler, the effect on arms makers everywhere was tonic. The Skoda works in Czechoslovakia, for example, was flooded with orders and had to hire thousands of additional workers. The vice-president of the Colt Company in the United States commented concerning— ". . . what is happening at the Skoda works. Man, it makes my mouth water, and here we are, over here, prepared to produce material par excellence and getting nothing."

But even the international co-operation among arms producers was of little help to Germany compared to the general aid from foreign investors. Once the inflation had been

stopped and the mark stabilized foreign loans literally poured into Germany. Between 1924 and 1930 Germany's foreign debt increased by more than thirty billion marks. The loans were for the most part private transactions. In total they at least offset what Germany was paying out in reparations.

With the aid of foreign capital German industry was extensively overhauled and modernized. The whole economy was put into good shape for all-out production for war under the Nazis. Some of the loans went directly to firms which figured most immediately in rearmament.

Krupp was the very symbol of German arms makers. The Krupp family fortune was saved in December, 1924, by a loan of ten million dollars from Hallgarten and Company and Goldman Sachs and Company of New York. With the backing of good American dollars the Krupp works were rationalized and made ready to produce for another war.

Vereinigte Stahlwerke was perhaps less important than Krupp as a symbol, but more important as a producer of steel. Over one hundred million dollars in long term loans went to Vereinigte Stahlwerke. According to a 1945 report by the U. S. Foreign Economic Administration, "It is doubtful that the trust could have carried out its program of expansion and modernization without the support of the American investor."

The Germany which was turned over to Adolph Hitler had already come a long way on the road from Versailles. And it had been given a sturdy shove ahead by its enemies of the past and future.

IG Farben did not produce guns, plans, or tanks. As far as is known, the IG did not raise private armies in the days of the Black Militia. Even so, IG was probably the greatest single factor in Germany's preparation for war.

It was with genuine admiration that Gustav Stresemann, Chancellor of the Weimar Republic, said in 1927:

"What have I as a trump in my hands aside from IG and the coal people?"

Let other companies make artillery and bombers. These were the straightforward, relatively simple operations. IG Farben tackled the really difficult problems of rearmament. And solved them. And became ever more rich and powerful in solving them.

IG did, of course, have direct connections with the obvious kinds of war production. In 1926 IG Farben made a series of agreements by which it obtained control over the bulk of the German explosives industry. Two big munitions-making concerns, the Dynamit-Nobel Corporation and the Rheinische-Westfaelische Sprengstoff Corporation, became IG subsidiaries. Through the Dynamit Corporation, known as the DAG, IG became involved in the international politics of munitions making. By 1925 the DAG had already fought a small price-war with Du Pont and the Hercules Powder companies of the United States, for a slice of the powder business of Mexico. At that time the DAG was kept from the back door of the United States only by the threat of American competition in other foreign markets.

Furthermore, IG had firm ties with all of German heavy industry, ties which became more binding with the years. IG owned its own coal mines and became one of the big powers of the Ruhr. Even the Krupp organization, wholly owned by the Krupp family, included on its board of directors Hermann Schmitz who was the top man in IG at the time of World War II. Altogether, Schmitz was chairman of the board of directors of at least seven firms. He was a member of the board of at least ten others, including the major steel combine, Vereinigte Stahlwerke. IG acquired twelve per cent of the stock of Vereinigte Stahlwerke, thereby becoming the largest stockholder in the steel trust after the German government.

But IG Farben's most important achievement was in finding substitutes for critical raw materials. The conquest of the

nitrate shortage was IG's great contribution to the prolonging of World War I. The Haber process for snatching nitrogen, basic ingredient of explosives, from the air, was ready for production in 1913. After the war, IG broadened its grip on the synthetic nitrate field, both for military purposes and for the production of artificial fertilizers. By 1928, Germany dominated all nitrate production, whether synthetic or natural. In that year 1.7 million tons of nitrates were produced throughout the world: of the total, 920,000 tons were synthetic and 677,000 tons of the synthetic were made in Germany. Thus Germany accounted for three-quarters of the world's synthetic nitrate production, nearly half of the production of all kinds of nitrates. The old dependence on the natural deposits of Chile was gone forever.

German nitrate production meant IG production. In 1919 all nitrate producers in Germany had been united into a single syndicate under government sponsorship. IG was the biggest factor in the syndicate, but ideas of government ownership and control were still very strong in the first years after World War I. The German government retained the right to name and recall the executives of the syndicate. By 1924, the government quietly backed out of the picture and left the field of nitrates in the hands of IG: a change was made in voting procedures of the governing council of the syndicate so that IG, which had had only five out of seventeen votes, now acquired twenty out of thirty-three votes with a clear majority.

Professor Fritz Haber had been the great scientist for the IG who showed how to take free nitrogen and free hydrogen and unite them to make ammonia, which, in turn, could be made into explosives or fertilizer. Nitrogen, a quite inert element itself, was only useful in combinations. And, until Haber's discovery, the combinations of nitrogen had to be taken as they were found in nature. Now Haber was loaded with honors and took on the role of an elder statesman. This gave added significance to his visit to Japan in 1924.

In the course of his stay Haber made an address to a group of Japanese industrialists. The speech was some years ahead of itself: in effect it was an invitation to the formation of what became the fascist Axis. Haber said, in part:

". . . How did you solve your problems in the military sphere? By building a wall around yourselves (and not learning from others)? . . . You did the opposite. You used all your strength to work with those who were ahead of you. Do not your military successes make you thirst to repeat the same performances in the technical fields? . . . Herein lies the cooperation between us, which I have already characterized as the only practicable path. It means that we will become partners in your projects, and lend you men and experience, till they have been developed from among your own people."

If there was any doubt about the meaning of this speech, it was dispelled by another which Haber delivered after his return to Germany. In this he outlined the inevitable conflict to come between Japan and the United States.

The problem of nitrate supplies was well in hand. Next came the problem of oil. Synthetic oil was the special dream of Dr. Carl Bosch, who with Duisberg had founded the IG. Bosch was much more than a manipulator of corporations. He was also a technical man of the highest rank. In 1931 he shared the Nobel prize in chemistry with his colleague, Dr. Bergius. Herein lay one of the greatest strengths of IG Farben. To an extent rarely if ever seen in the business concerns of other countries, the leading men of IG combined both technical and administrative abilities. This assured complete understanding of technical problems at all levels of the organization and a powerful, continuous drive toward expansion into new fields.

Dyestuffs had been the foundation of the IG. Dyestuffs remained perhaps the steadiest source of profits. Yet the directors of IG did not hesitate to pour capital and research talent into the search for synthetic oil and rubber—even though

these could not promise quick returns but rather fitted into the big picture of German rearmament and eventual conquest.

Using their war-gained experience with high pressures in handling nitrogen fixation, Bosch and the IG chemists solved the problem of making synthetic oils. For a starting point they used cheap and abundant German coal. They developed a process called hydrogenation whereby a drayhorse was converted into a greyhound: coal, fit only to be burned in furnaces, was converted into lubricating oils and gasoline which could be used in automobiles, or tanks, or airplanes.

The hydrogenation of coal into gasoline caused a revolution, both technologically and in the political balance of power which had been based on control of oil resources. As will be seen in a later chapter, it was the entering wedge by which IG forced its way into an alliance with the huge Standard Oil Company of New Jersey and thereby exerted a strange influence over the American war effort. Let it suffice to say here that the hydrogenation of coal was the answer to one of the main questions facing the German General Staff. Now they could plan an oil-devouring war of rapid movement with tanks and aircraft, without having an assured supply of natural petroleum.

The German government showed a keen appreciation of IG's work in synthetic oils. The budding industry was protected behind tariffs. By 1931 IG had reached a potential capacity of 300,000 tons of synthetic oil per year in its main plant at Leuna. In the same year the Bruening administration granted IG a further increase in the tariff of gasoline, so that in effect the government subsidy for 300,000 tons amounted to about twenty-four million marks.

Meanwhile the work in synthetic rubber was also being pushed. In November, 1927, Arthur von Weinberg, an IG Farben executive in Frankfurt, announced that: "Synthetic rubber experiments conducted on a small scale have definitely demonstrated the reliability of the scientific formula . . .

[but there were production problems] and it may, therefore, be a year or two before the artificial product is put on the market."

When Von Weinberg spoke, the IG had already been working on synthetic rubber for more than twenty years. Large sums had been spent on the rubber research and much more was still to be spent. In 1927 IG had spent only 100,000 marks on work with rubber. In 1928 the amount increased drastically to 2,700,000 marks, and in 1929 it went up to 3,300,000 marks. After Hitler came into power and rubber became a truly critical war item the amount spent for research jumped to around eight million marks per year.

The technical problems in making synthetic rubber were unusually difficult. IG's work in the field began in 1906 when Carl Duisberg ordered Dr. F. Hofmann, a chemist at the Leverkusen works, to proceed with rubber synthesis. For years the results were meager. Yet the prize was great. In purely business terms, the high prices exacted by the monopolists who controlled the natural rubber of the Far East offered a wide opening for any acceptable substitute which would be reasonably cheap. Rubber qualities of stretch and bounce made it basic to motor transportation.

In World War I Germany suffered badly for lack of rubber. After the war, when Allied occupation troops rolled in with cars and trucks on rubber tires, German vehicles were slowly creaking along on steel rims. In the plans for a second world war, the need for rubber bulked even larger than in World War I.

The first step on the trail to artificial rubber was taken by the English chemist Sir William Tilden. Tilden discovered that the basic ingredients of rubber were carbon and hydrogen, joined in the ratio of five atoms of carbon to eight atoms of hydrogen. He also discovered a way to make a synthetic substance in which there were the same five units of carbon to eight units of hydrogen; he called the substance isoprene.

Unfortunately, although the ingredients were the same, the mixture was very different. There was no apparent resemblance between isoprene and rubber, because in rubber the atoms were arranged in a very complex manner. The big trick was to get the atoms of isoprene to arrange themselves in a more complicated way by a process called polymerization. It turned out to be a difficult trick.

The IG scientists followed the lead of the Russian Kondakoff and used as a starting point not isoprene but something like it called butadiene. They reasoned that the real problem was to get something with the qualities of rubber, not necessarily the chemical and physical duplicate of rubber itself. Ultimately this is what they succeeded in doing.

During World War I, IG had only limited success with rubber. They produced about 2500 tons of something they called methyl rubber which was used for accumulator boxes in U-boats. Dr. Duisberg also had at least one pet automobile tire made of synthetic rubber which he took around with him to chemical conventions as a portent of things to come.

After World War I, IG took a big step forward by developing a method for making the starting ingredient, butadiene, cheaply out of coke and limestone. Then they found ways to mix butadiene with other substances, like styrene, and came out finally with the famous buna-N and buna-S rubbers with which they fought World War II. These were the same buna rubbers which American chemists had to figure out how to produce when the United States was caught short at the beginning of the war.

Nitrates, oil, and rubber: in all three cases the IG had succeeded in making Germany independent. When armored vehicles rolled on buna-S tires or treads, powered by synthetic gasoline, the German General Staff knew that rearmament was in its last stages. Now the war could start whenever Hitler gave the signal.

6
The Quiet War

Before Hitler, Germany was busily rearming. After Hitler came to power in 1933, Germany went to war. It took six tense years before the first shots were fired. But the war had actually started long before that. It was quiet war: war by propaganda; war of spies; war for political advantage; and above all, war of economic aggression.

The key to the whole period of economic warfare was given by Carl Duisberg in a statement of IG foreign policy which he made in March, 1931:

"For the ultimate solution of the European problem, the question of economic relations with France must still be settled, and a closed economic bloc from Bordeaux to Odessa, as the backbone of Europe, must be created."

A great deal of the economic warfare of the Germans followed the patterns of normal business. That is, much of what the Germans did could be termed merely "cartel-building." In this respect IG Farben was out and away the leading German concern and probably the leader in the entire world. During the period between the two world wars, IG was tire-

lessly spreading a network of cartel relations which eventually covered every part of the world. In almost every case IG was the dominating element in the cartels it entered.

Cartels proved to be an effective weapon for German businessmen operating in the interest of the Fatherland. Through the system of cartels which IG, for example, was able to build up, a main center in Germany could virtually dictate the amount of chemical production in almost any country on the continent of Europe. And chemicals, of course, are as important for war as for any normal peacetime industry such as textiles or agriculture. While relying on their own scientists to maintain technical leadership, IG could nevertheless keep constant watch on all new discoveries in the other countries through patent pooling agreements.

With a few more steps, economic pressure, still perhaps in the category of sharp trading, passed over the borderline into clear-cut aggression. The widely spread sales organization of IG was used to plant Nazi agents in strong posts throughout the world. The international network of the IG was used to siphon all kinds of information from other countries back to the intelligence centers of the Nazi Party and the Wehrmacht. The spy of fiction is a lurid figure who emerges in disguise from the underworld. In striking contrast, Germany's most effective intelligence agents were solid, respectable businessmen, selling excellent goods and advanced industrial techniques.

When World War I ended, IG had apparently been driven out of foreign markets. Both its patents and its foreign agencies were taken over by the Allies. The budding structure of cartels seemed to be broken. But IG Farben retained its German plants and above all its technical prowess. IG was as fearsome a competitor as ever, and the dye and chemical producers were as hungry as ever for a share in IG patents. Within ten years, IG had regained its place in foreign trade and within twenty years, at the outbreak of World War II,

IG was at the center of the whole international cartel structure.

The first steps, and they were taken within only a few years, were loose alliances with Swiss and French dye makers. The three main Swiss concerns—Ciba, Sandoz, and Geigy—formed a cartel of their own in 1920, and soon afterwards reached a working agreement with IG. The bulk of the French dye business was in the hands of two concerns: Etablissement Kuhlmann (with its affiliate, St. Clair du Rhone) and the Societe des Matieres Colorantes de St. Denis.

By 1926 the French and Swiss firms were co-operating with IG under an oral agreement. There was a provisional written agreement between the Germans and French in 1927. And in 1929 relationships were crystallized into the Continental Dye Cartel. There were six parties to this cartel; three Swiss, two French, and IG. Together the six firms accounted for eighty per cent of the value of dyestuffs produced in the world in 1927. The strength of IG was as the strength of more than ten, whether or not its heart was pure: by terms of the cartel IG was given seventy-five per cent of the export quota. The whole world, exclusive of the United States, was broken into exclusive market areas. Joint sales offices were operated by the cartel. Now IG could compete with outside producers in the limited world market with the strength of the entire European dye trade behind it.

The next step was to force the English chemical industry into line. Following the lead of IG the major chemical firms of Great Britain in 1926 had organized into a single concern, the Imperial Chemical Industries, Ltd. In size and strength, ICI was second only to IG in Europe. From the start there were some cartel links between ICI and IG. ICI included the British Nobel interests which had already come to terms with DAG and Koeln-Rottweill, Germany's (and IG's) contribution to the international munitions ring. By 1932, the heads of the British ICI were ready to admit that they could not hope to fight the Continental bloc under IG and they joined the

cartel. There were still some areas, like Czechoslovakia, Rumania, and the Middle East in which fierce rivalry between British and German chemical interests continued, but for the most part the English had accepted the leadership of IG.

The crowning achievement of IG's cartel building was the series of agreements reached with American corporations. On the basis of IG's process for turning coal into gasoline a broad alliance was made with Standard Oil of New Jersey. Strong links were established with the Ford Company. Not quite so successful were the negotiations with the leading American chemical concern, Du Pont. Bargaining went on for years between IG and Du Pont without their reaching an overall agreement. But because both IG and Du Pont had comprehensive agreements with the British ICI, the two giants of the world of chemistry avoided a showdown fight; the terms of their agreements with ICI at least had to be consistent.

The great wealth and resources of America made it the final goal of any plan of economic aggression. How far IG had penetrated into North and South America and how it had crippled the American war effort after Pearl Harbor will be told in later chapters.

Some of the foreign companies which entered into IG-dominated cartels were strong enough to deal with the Germans more or less as equals. Many others were simply bought out by IG. With the branches which IG had abroad, this gave IG a system of foreign holdings and assets which covered ninety-three countries on all the continents of the earth. To list IG's foreign holdings would only be tedious and bewildering: there were about five hundred of them. Many were major concerns in their own right. For example, Norsk-Hydro, which moved into the empire of German chemicals in the middle of the 1920's, was a leader of Norwegian industry and a large-scale producer of nitrates. For a starter, IG acquired twenty-six per cent of the stock of Norsk-Hydro; French interests retained financial control, but this, too,

passed to the Germans after the debacle in 1940. A cartel agreement assigned to the Norwegians their place in the German system of marketing and production. Finally, IG acted as the sales agency for all of the products of Norsk-Hydro.

During World War II Norsk-Hydro was a frequently discussed bomb target. It was reportedly a center of heavy water experiments—the same experiments which gave Allied intelligence some anxious hours trying to judge how far the Nazis had delved into the secrets of atomic fission. Today, in liberated Norway, Norsk-Hydro is in full production again. It is one of the most promising parts of the old IG Farben network. According to evidence in the record of the U. S. Senate's Kilgore Committee, an American agent of the IG named Carl Peters came to Germany after World War II in a U. S. government job. He had to be sent home because he was using his official position to pick up broken threads of old relationships. It is significant that he was particularly interested in reestablishing contacts with Norsk-Hydro.

According to its own books IG in 1943 had an interest in two hundred forty-eight foreign companies. Yet careful investigation after the war was over revealed that the true number was practically double that. The difference is explained in one word: camouflage—a difficult art in which Hermann Schmitz was considered by his colleagues to be a master.

To all appearances a camouflaged firm had no essential connection with IG. Ownership generally was supposed to rest in the hands of citizens of the particular country in which the company was located. Close inspection would reveal that operations were actually controlled by agents of IG Farben, but in the eyes of the law the firm was independent.

A prime example of Farben camouflage in the United States is the General Aniline and Film Corporation. General Aniline and Film, when the United States entered World War II, called itself an independent corporation with no relation to IG Farben. Yet it had been created originally by IG Far-

ben, under the name of American IG. The stock of the corporation was held, not by IG Farben, but foresightedly by another corporate dummy set up by Farben—IG Chemie of Switzerland. It is to be observed that when all this happened, in the late 1920's, IG Farben was not so bashful about tagging its foreign agents with the mystic symbol "IG." But after the war started, Hermann Schmitz went through all the legal motions of severing the ties between IG Farben and IG Chemie of Switzerland. He hoped naturally that this would remove such valuable properties as General Aniline and Film from the category of German, and, therefore, enemy companies into the safe haven of the neutrals. Incidentally, if anyone wondered during the war why Germany did not take over Switzerland, this is an important part of the answer. Since IG Chemie now called itself an independent and neutral Swiss company, and since IG Chemie still held much of the stock of General Aniline and Film, the latter also called itself a neutral company free of German control. As a German organization it would be seized by the U. S. government. If it passed muster as a neutral, it would be free to continue in business as usual. More than a year after the end of the war, the status of General Aniline and Film had not been determined. Hermann Schmitz had woven his legal web of concealment with consummate skill.

IG Chemie was perhaps the most important link in IG Farben's chain of camouflaged holdings. It was established in Switzerland in 1928 with the full name of "Internationale Gesellschaft fur Chemische Unternehmungen." *IG* Chemie was created by *IG* Farben. Hermann Schmitz was president of both organizations. IG Farben guaranteed the dividends which would have to be paid by IG Chemie. It was provided that IG Farben could at any time take over IG Chemie at its book value.

And then with one bold stroke Schmitz declared IG Chemie independent. IG Farben would no longer guarantee dividends

or be able to take over at will. Schmitz was no longer president of the Swiss concern.

Actually, of course, the old ties were still there. The bank which handled IG Chemie's financial matters, H. Sturznegger and Company, was one of IG Farben's foreign assets. IG Farben retained its friends (and agents) in the management of IG Chemie. But the legal formalities were rigidly observed and the remaining ties deeply concealed. Schmitz's personal secretary, a nervous, middle-aged woman, was interrogated at length on this point by American officials. In a series of interviews punctuated by frequent breakdowns and hysterics, the secretary doggedly maintained that she knew nothing at all about Schmitz's dealings with IG Chemie after the separation. In the end, after every possible technique of questioning had been exhausted, the interrogators were almost convinced: Hermann Schmitz was so secretive that his own personal secretary did not always know what he was doing.

Geheimrat Schmitz did not practice the arts of corporate camouflage just for the pleasure of proving his own virtuosity. There was the obvious reason that Germany was heading straight for a war, and foreign holdings would have to be concealed to prevent seizure by possible enemies. And there were other advantages, such as tax evasion, as well. An interoffice memorandum found in the files of IG Farben in Frankfurt gives a frank account of the reasons for using camouflage. According to the document, IG started the process of camouflage of foreign agencies as soon as World War I ended. The main features of concealment were: ". . . to establish such companies as firms of the law of the country concerned and to distribute the shares of these firms in such a way that the participation of IG in these firms was not shown."

The advantages were many:

"The 'Tarnung' [camouflage] in the past has not only been of great advantage in the commercial and tax situation which figured in many millions, but also in the consequence of this

war the system of 'Tarnung' gave us the chance in a large scale to secure our organization, the investments, and the advance of our outstanding claims."

Besides avoiding heavy taxes frequently levied against foreign concerns, the camouflaged IG agencies were protected against boycott. There were no difficulties with currency regulations. Details of IG operations were concealed. And after the Allied blockade was thrown around Germany, IG's orders were filled by its cloaked agencies.

Some of the brasher Nazi agents opposed the IG system of camouflage. They wanted the glories of Hitler's Reich proclaimed in every possible way. As the IG memorandum says (in translation by one of the IG officials):

"In case of gaining this war, the mightful situation of the Reich will make it necessary to re-examine the system of 'Tarnung'. Politically seen, it will often be wished that the German character of our foreign selling companies is openly shown. In this respect already before this war strong wishes of the A.O. [Nazi foreign agency] became loud . . ."

Whether the war was won or not, IG had no intention of dropping camouflage in all countries. The U. S. anti-dumping act of 1921 was an obstacle which the Germans intended to continue to by-pass. As the memorandum says: "The U. S. A. Antidumping Act will remain. Therefore, continuing of the 'Tarnung' in Australia and Canada, just to have two free and independent importers in these countries [to whom German goods would be sent at cut prices to conceal the fact that dumping was being practiced in the United States] . . ."

There is nothing new in the use of intelligence services—including spies and informers—by private business. There is the famous story of Baron Rothschild receiving news of the Battle of Waterloo ahead of cabinet officials, and making a killing with the information. Hugo Stinnes operated a personal information service with agents all over Europe; some of them would have been most at home in a novel by Eric

Ambler. But the spy work of IG Farben was done on an unprecedented scale. So complete was the coverage of every important aspect of conditions in foreign countries that Farben became one of the main props of both Wehrmacht and Nazi Party intelligence.

The head of the IG spy ring was Max Ilgner. Ilgner was a dynamic and ambitious young man, the nephew of *Geheimrat* Schmitz and a member of the *Vorstand* or board of managing directors. Officially he was known simply as the Director of Finance for IG. But his office, called Berlin NW 7, had functions far removed from finance.

Like his uncle Schmitz, Ilgner appreciated the value of secrecy. He ran his office with a strong hand and none of his chief assistants had a complete picture of the whole operation. Ilgner had early joined the Nazi Party and maintained relations with such party leaders as Goebbels. When one of the IG men, Gattineau, became involved with Ernst Roehm at the time of the 1934 blood purge and was jailed, Ilgner's influence in party circles was powerful enough to have him released. But it was evident in the course of his interrogations that Ilgner took most pleasure in recalling the days before Hitler took over when he met with Germany's elite in the *Herrn Klub,* the inner circle of Junkers and financiers which included Von Papen and General von Schleicher.

The largest section of NW 7, and the one which had the main intelligence function, bore the innocent title of Statistical Department. The functions of the Statistical Department were described by a Farben official as follows:

"Such tasks and work were to prepare . . . all records, files, reports, maps, and figures, that were appointed [sic] by the officers of the OKW [army supreme command]; to complete them out of other archives at the disposal of the OKW by news and reports entering IG Berlin NW 7; . . . to prepare reports and maps about industries and agricultural production abroad, considering especially the 'engpasse' (bottle-

necks) in capacities and raw materials. To make inquiries about production . . . (and) to prepare reports about the economical situation of foreign countries . . ."

All of the functions described here are well within the normal run of intelligence operations. What is remarkable is the fact that the Supreme Command of the Army, which boasted of having the most highly developed staff in the world, should call on a private business concern to do this work for it. Even more remarkable is Ilgner's own admission that *relations with the OKW began as far back as 1928.*

As always, IG operations were cloaked in the utmost respectability. Ilgner's director of statistics was a Dr. Reithinger who had been considered one of the outstanding statisticians of Germany. Reithinger had traveled in many countries including the United States, England, Russia, and France (the most important potential enemies of Germany) and in each country met with leading statisticians and economists on a basis of scientific interest and arranged the exchange of statistical data.

IG's intelligence work was well appreciated by the Army. The following letter was sent to the chief salesman of IG, Georg von Schnitzler, by Colonel Piekenbrock who was a counter-espionage officer for the OKW:

"I would like to inform you that I am shortly leaving Berlin and my present office to take over a command at the front. I feel particularly urged to thank you for the valuable cooperation which you have extended to my office. I shall always retain pleasant memories of the personal and official collaboration with you.

"I should like to take this opportunity of asking you to give the same support to my successor, Lieutenant Colonel Hansen.

"With many thanks and Heil Hitler . . ."

The Army thought so highly of NW 7's general intelligence work and of its more specific jobs like the making of bomb

surveys for the Luftwaffe that one of Ilgner's serious problems was to prevent the OKW from bodily taking over whole sections of NW 7. The problem was solved by putting some of the younger men in uniform and letting them stay on their old jobs in the IG Farben intelligence service.

The Berlin NW 7 office was the center of the IG intelligence, but the business end of the operation was in foreign countries, including the United States. Surprisingly little news of Nazi spies or of action against them reached the American public either during World War II or in the preceding years of growing tension. This was in striking contrast to World War I in the course of which ranking diplomatic figures, such as Franz von Papen, were implicated in espionage.

The F. B. I. did make headlines with a few investigations shortly before the outbreak of World War II. But the results were not overwhelmingly impressive. A pair of Nazi agents, Dr. Ignatz Griebl and Werner Gudenberg, evaded arrest and escaped from the country on German passenger liners. A handful of others, quite evidently small fry, were arrested: they included a hairdresser, Johanna Hofmann; a former soldier, Guenther Rumrich; Otto Voss, an aviation mechanic; Erich Glaser, a soldier in the air corps. After the war had started, a head-on assault of Nazi spies and saboteurs was stopped when the agents who were landed by submarine were picked up on the eastern seaboard.

But still there was no public evidence of a general and effective system of Nazi espionage. As one writer (Richard Wilmer Rowan, in *Secret Agents Against America*) noted sardonically in 1939:

"During the great Nazi spy investigation—without one example of a great Nazi spy—the legal representatives of the United States government worked out a method by means of which they were certain to leave this case just about where they found it. Whenever a German suspect appeared cheerfully before Federal officials in New York and said he would

be glad to tell all he knew, he ceased to be a suspect, even though he told them all he knew. It proved to be an unbeatable ruse in making for the exits which led straight home to Germany."

The fact that there was little published evidence did not, of course, mean that there was no Nazi espionage in the United States. It did not even mean that no counter-steps had been taken by the F. B. I. or U. S. Military Intelligence. It is an axiom of counter-intelligence that an enemy agent under observation can lead to further information, whereas once he is arrested all lines are broken. But it is certain that the small amount of revealed information was misleading in one respect: The Nazis did not have to depend on beauty parlor operators and army deserters as their only agents.

Following the collapse of the German Imperial armies in November, 1918, Germany's military leaders reviewed every phase of their operations. They examined, they criticized, they planned anew. Out of defeat came new ideas. Ludendorff and Von Seeckt preached the doctrine of sudden and total war. The head of intelligence for the German General Staff, Colonel Walther Nicolai, took the over-all approach of Ludendorff and developed from it what Curt Riess has termed the concept of "total espionage."

According to the German military theory developed between the two world wars, every resource of the nation, from the entire economy out through every political organ, would be organized in complete support of a mechanized and sharply trained army which would strike suddenly and with overwhelming force. This became the well-known pattern of the *Blitz*. And back of this system of lightning war stood a revolutionary approach to espionage. In the ideas of Colonel Nicolai, Mata Hari and the soldier-spy operating in a half-dozen different uniforms were as dated as attrition by trench warfare. The lurid specialist out of a half-world was no longer enough. Every foreign link of the entire nation should

be used to pick up information and funnel it back to the intelligence center.

For this new type of espionage what could be more perfectly suited than business concerns trading in all parts of the world and dealing with important technical information as a matter of daily routine? For espionage in Russia, Colonel Nicolai used firms like Borsig and Frolich–Klupfel–Dehlmann. In dozens of other countries throughout the world the network of IG Farben was ready at hand.

The United States was so important in German plans that IG found it necessary to set up a special organization—called Chemnyco, Inc., of New York—to siphon out technical data of military importance.

Chemnyco was a small and compact firm. It used only about thirty employees. Its officials for the most part were American citizens. Its stock was held in the names of American citizens. Some of the most important names in the top rungs of IG Farben were associated with Chemnyco at one time or another. There were Walter Duisberg, son of the eminent Carl Duisberg; Dietrich A. Schmitz, brother of Hermann Schmitz; and Rudolph Ilgner, brother of Max Ilgner. IG's leaders had sent men whom they could trust to represent them in America. When the men who operated Chemnyco were not related by blood to the principal leaders of IG in Germany, they were at least reliable German-Americans with unmistakable sympathies. For example, the last president of Chemnyco was an industrial chemist named Karl Hochswender. Hochswender had been trained at the best German universities and within the IG in Germany. He was sent to the United States early in the 1930's to take part in discussions with Standard Oil; he remained and became a citizen.

Hochswender fared well in the United States. He lived the life of a well-to-do New York suburbanite. He was a member of good clubs as well as of the *Deutscher Verein.* He made contributions to the *Deutsches Haus* of Columbia

University, the American Committee for the German Relief Fund, German-American Charities, Inc., and the German-American School Association.

Hochswender was counted on in the campaign to build sympathy for the Nazi state. In October, 1938, he received a letter from Frederick Heuser, the director of the *Deutsches Haus* of Columbia University, which stated:

". . . When one considers that the University is being flooded with anti-German books from all sources, it is very important that the German side should also find consideration . . . You must help us if we are to keep up this work on behalf of a better understanding of the Greater Germany."

And in May, 1939, he received a similar letter from Heuser:

"As I am going to Europe the end of this week, partly on *Deutches Haus* business . . . might I ask you whether you would not make at this time the same contribution as last year?

"I do not wish to appear importunate, but as you may well imagine I am sincerely concerned about our work which was rarely so important as just now."

Officially, Chemnyco was known as a "technical service" agency. Its sole client was IG Farben. Just how such an agency could ferret out industrial-military intelligence is clearly indicated in an inter-office memo of the IG, discovered in Germany, which outlined the duties of Chemnyco:

"To make on request of the IG visits, examinations, investigations and estimates of technical, financial, industrial, or economic nature of each planned or existing industry . . . and to give if wanted a thorough report . . :

". . . To examine on request of the IG, American patents, processes, or inventions from the scientific, technical, commercial, and practical point of view . . .

". . . If the interests of IG make it necessary, to take over the mentioned tasks for Canada."

Much of the information dug up by Chemnyco can never be known. When U. S. government agents came to seize the files of Chemnyco, shortly after Pearl Harbor, they found Rudolph Ilgner in the process of destroying what he evidently considered his most important papers. Even so, enough of them were left to be of interest to several U. S. Military Intelligence officers. There were detailed reports on more than fifty countries, apparatus for secret communication, aerial photos of the New York area, and a variety of industrial blueprints. There was information concerning railroads and highways. Chemnyco's collection of maps was particularly complete: there were maps of coal mines and electric transmission lines; diagrams of industrial installations; maps of oil basins, refineries, pipe lines, and oil tanker routes; there were topographical maps of U. S. shore lines and harbors; and one map bore the title, "West India Islands and the Approaches to the Panama Canal."

As stated earlier, IG's central office in Berlin for collecting foreign intelligence was the statistical section (known as "VOWI") of NW 7, under the direction of the itinerant statistician Reithinger. Rudolph Ilgner channeled his information directly back to VOWI and Reithinger—and the Wehrmacht. When the war began, communications became more difficult but information continued to go through. On October 11, 1939, Rudolph Ilgner wrote to his secretary:

"According to advice received from VOWI the last letter they seem to have received was dated August 18th. Will you please advise Mrs. Conner to use two envelopes in the future of which one is to be addressed to Mr. Reithinger, Berlin NW 7, Unter den Linden 82, Germany, and this envelope to be placed into another one to the following company:

"A.R. C.A. Aziende Riunite Colorante

"Affini S.A., Milano 5/6

"Via Luigi Galvani 12, Casella Postale 3593. . ."

After America's entry into the war, Chemnyco was taken

over by the U. S. government and by April, 1942, it had been liquidated. But the men who had operated Chemnyco remained. None of them was molested throughout the war.

Rudolph Ilgner, for example, temporarily retired from business and operated his farm, Rudlyne, near Canaan, Connecticut. Ilgner was born in Cologne. He fought in World War I, received Iron Crosses of the first and second class. Later he was in the Free Corps fighting in the lower Rhineland. He served his business apprenticeship with a Berlin bank and one of the IG firms. Then in 1923 he was sent to New York, and by 1930 had become an American citizen. His entire business career was spent in chemical firms affiliated with IG Farben. He became the head of the "statistical unit" of American IG (it may be noted that Reithinger's section of Berlin NW 7 was also called "the statistical department") and in 1937 he transferred over to Chemnyco as vice-president with his whole unit.

Ilgner was a successful and accepted member of the business community. The war interrupted his services for IG but as peace slowly took shape there was nothing to prevent his return to American business life.

When American forces took up the occupation of Germany, IG Farben's role as a war-maker was already clearly understood. To eliminate IG and its influence was an established part of American policy. Everything discovered in the course of investigation in Germany reinforced this policy and demonstrated that IG and its ranking personnel would have to be brought as war criminals before a Nuremberg tribunal. And yet—IG leaders in the United States, including men implicated in direct military intelligence operations against their adopted country, sat out the war in apparent security—safe, comfortable, and still eminently respectable.

In most countries where IG did not set up special intelligence agencies like Chemnyco, NW 7 was represented by

special agents called *Verbindungsmaenner*. These men were generally well-established sales representatives of IG whose spy work could be carried on under the cloak of everyday business. To assure their interest in the job they were paid extra sums of money directly from Berlin.

Part of the work of the special agents was business routine; for example, they made surveys of conditions before the IG would undertake construction of new foreign plants. In part also they were responsible for keeping IG informed on political developments. And part of their work was straight military espionage. Reports from Latin America included details on port facilities, ship and convoy movements, shipments of war materials, construction of key bridges and highways, and development of air and naval bases.

It was inevitable that IG Farben's efficient system of international agents would be used by the Nazi Party for its political work abroad. The Nazi foreign agency was called the *Auslands-Organization* or "AO." To start with there was friction between the well-established Farben agents and the newcomers of the AO. But matters were soon enough taken in hand by the energetic Max Ilgner. He was able to report on returning to Germany from Latin America in 1936 that:

". . . cooperation with the German authorities during the last years . . . has improved and been intensified, and also in particular the cooperation with the foreign organization of the Nazi Party is continually developing in a more and more positive direction."

The reason for the more successful cooperation with the Nazi Party was made clear in another report by Ilgner the next year, in 1937:

". . . in no case will men be sent to our foreign companies who do not belong to the German Labor Front and who do not possess a positive attitude toward the New Order. The men who are to be sent should make it their special duty to represent National Socialistic Germanhood . . . upon enter-

ing our companies they are to make contact with the (local branch of the Party) . . . and regularly participate in their meetings. . . The sales department should see to it that an appropriate amount of national socialistic literature is given to them."

The services which IG performed for the Nazis abroad were many. On the theory that once a German always a German, business concerns in foreign lands were expected to help preserve German culture by building up purely German institutions. IG contributed liberally to help build German schools, German churches, German hospitals, and German social clubs throughout the world. IG also made heavy contributions to finance Nazi Party cells abroad. Records found in the main files in Frankfurt indicated that between 1940 and and 1942 a sum of nearly ten million marks was sent to Nazi foreign agents through IG's Bayer agencies alone.

When it came to fostering Nazi propaganda Farben used its own influence directly without bothering about intermediaries. If a foreign newspaper was unfriendly to the Nazi State IG withheld its advertising. IG forced one of its American satellites, Sterling Products, to follow the same policy. In 1938 a letter went from IG to Sterling demanding that in the future advertising contracts should contain—

". . . a legal clause whereby the contract is immediately canceled if overnight the attitude of the paper toward Germany should be changed." To give added weight to this admonition, the letter was sent to a Sterling official who was of German origin so that he ". . . would know the Party in Germany was watching him and could watch his step."

One of IG Farben's most ambitious propaganda stunts in the service of the Reich was the hiring of Mr. Ivy Lee. Ivy Lee, it will be remembered, was an American pioneer in the art of high-pressure public relations. He had devoted himself to the difficult task of changing the accepted picture of John D. Rockefeller from that of a tight-fisted industrial buc-

caneer (according to Ida Tarbell and Lincoln Steffens) to that of an upright old philanthropist doing good works with shiny dimes (according to Ivy Lee). In the course of a Congressional investigation in 1934 (by the Dickstein Committee), it developed that Lee had been diligently spreading pro-Hitler propaganda.

Lee defended himself by saying that he had not been hired by the Nazi State, but by IG Farben. In truth, IG had acted as the intermediary for Germany. Possibly Lee had been thought of as a result of the close working relations between IG and Standard Oil of New Jersey: what was good enough for the Rockefellers was good enough for IG Farben. In any case, Max Ilgner hired Lee, brought him to Germany, and introduced him in the highest governmental circles to make his work easier. As Lee himself testified: ". . . Dr. Ilgner introduced me to various Ministers. He went with me to see Goebbels. . .; Von Papen, the Vice-Chancellor; Von Neurath, the Foreign Minister; Schmidt, the Minister of Economics. . ."

There is no record of how much good Ivy Lee did for the Germans. But at least, he, and IG Farben, tried. He testified to having met Hitler and having given public relations advice to various high officials. He admitted having received, and used, piles of Nazi literature including anti-Semitic propaganda. As he said himself, perhaps with a note of depression: "We have received books and pamphlets and newspaper clippings and documents, world without end."

Pressure through cartels, camouflage of holdings, use of spies, support of Nazi agents, spreading of propaganda for Nazi Germany—in all these ways IG Farben had done its bit for Hitler's quiet war. But perhaps the closest connection to the war effort was through a specially created Army Liaison Office, called *Vermittlungsstelle W*. Dr. von Schnitzler gave the background for the organization of the new liaison office:

"In 1934 the Wehrmacht became important and with in-

creased tempo after 1936 the Wehrmacht became the prominent factor in the whole picture. Since 1934 a strong movement for investments in our plants for commodities of decisive military importance became more and more pronounced . . . Since 1936, the movement took an entirely military character and military reasons stood in the foreground. Hand in hand with this, the relations between IG and the Wehrmacht became more and more intimate and a continuous union between IG officials on the one side and the Wehrmacht representatives on the other side was the consequence of it."

According to an IG report of December, 1935, the function of *Vermittlungsstelle W*—

". . . is the building up of a tight organization for armament in the IG which could be inserted without difficulty in the existing organization. . . In case of war, IG will be treated by the authorities concerned with armament questions as one big plant which . . . will regulate itself without any organizational influence from outside. . . To the field of work of the *Vermittlungsstelle W* belongs . . . the continuous collaboration with regard to armament and technical questions (between) the authorities of the Reich and the plants of the IG."

All of this has a somewhat familiar ring. On the surface the arrangement does not seem very different from that used by American manufacturers and the U. S. government during the war. But there are essential differences. IG went to work for a Nazi State which clearly was embarking on aggression aimed at world domination. And there is also a significant difference in time. Close co-operation between American government and business really dated from December 7, 1941. In Germany it began in 1934. And this was reasonable enough, too: for the Germans, the war began when Hitler became Chancellor in 1933.

How seriously the Army Liaison Office was taken is indicated by the man picked as its head. Professor Carl Krauch was one of the outstanding leaders of the IG, a combination of

scientist and administrator in the old tradition of Bosch and Duisberg. Many of the technical men in IG felt that he, rather than *Geheimrat* Hermann Schmitz, should have succeeded Bosch as president of IG. Krauch proved so valuable that he was put in charge of all construction for the chemical industry under Goering's Four Year Plan and remained in a similar post throughout the war.

As a result of the work started by the Army Liaison Office, IG rounded out its full program of war production. All research was handled jointly with Wehrmacht officers (although IG never forgot to protect its patent rights along the way). The War Office and IG had direct dealings without any intervening layers of bureaucracy. And, finally, IG received training in how to carry out its operations uninterrupted in time of war. Starting in 1934, the Liaison Office arranged what were called "war games." IG engineers and Wehrmacht officers jointly set problems for each plant, showing what to do in case Marshal Goering's Luftwaffe should not be completely successful and there should be Allied air raids. Through the war games they learned where to place air raid shelters, what parts of the plants could and should be camouflaged, what were the most vulnerable units and how to prepare to replace them. These preparations paid off handsomely: through all the aerial bombardment IG suffered only a thirteen per cent loss in capacity.

IG Farben might have been luke-warm toward Hitler in the early days, but when the chips were down, IG led the way for all of German industry in giving the closest support to the Nazi State. It was good business to support Hitler —up to the end of the war. The wild-eyed Nazis on the fringe of the Party, the ones who had believed Hitler in his early speeches when he said he would clip the big monopolies, could safely be forgotten. The bad manners of the Storm Troopers counted for nothing while the profits rolled in.

The truth was that Hitler understood better than his predecessors in the German government what IG was doing to make Germany self-sufficient in time of war. He gave the chemical trust even better support than it had received from its own first choice for Chancellor, Bruening.

For example, there was the case of synthetic oil and gasoline. Here was a crowning achievement of the IG. Bruening supported the IG synthetics with a tariff. But even that was not enough. The cost of the experiments had run into millions. Natural gasoline was cheap and the synthetic was bringing poor returns. In 1932 the directors of IG had to consider abandoning the whole project. At this point two of the best-known Nazis in the IG leadership, Drs. Buetefisch and Gattineau, were sent on a mission to Hitler. He received them well, assured them that synthetic gasoline fitted into his program; after he became Chancellor he saw to it that the tariff on gasoline was still further raised.

By two of his accomplishments Hitler endeared himself not only to the men of Farben but to all major employers. There were no strikes in Hitler's Germany; within a year after Hitler took over there was no organized labor movement—only a heroic but dwindling underground which had ceased to be a factor by the time the war started. Also, there were no longer any problems of wages and working conditions. Real earnings stayed at a low level after 1933. The sixty-hour week became common, even before the war started; here finally was the answer to the cry of Stinnes and Schacht and Duisberg in the 1920's for more work and less social security. One result of the longer work week was a jump in the industrial accident rate, from thirty-four per thousand workers in 1932 to sixty in 1938. What employers would not gladly have split their profits for a chance to operate without worry over strikes and wage negotiations? Hitler gave it to them free. They had only to produce for a war which would be profitable in itself.

In the period of economic warfare under Hitler IG Farben reached its full scope of production. Starting with dyes, the IG had moved into heavy or industrial chemicals, into nitrate fixation, into synthetic oil and rubber, photographic materials, drugs, and explosives. In the process IG had become a big producer of coal and other basic materials. Now in the last phases of preparation for World War II, IG found still further fields. As was natural, IG took the lead in making plastics. It entered the field of light metals, tripling its magnesium production in six years, from 1935 to 1941.

Back in the 1920's Professor Bosch had had to worry about the source of capital to support his new developments. Those days were gone. In the first ten years of Hitler's reign, from 1933 to 1943, IG was able to invest more than four billion marks in new plants or expansion of old ones. A great deal of the capital was put up by the Nazi government.

All dreams were coming true. Carl Duisberg had talked for years about co-operation between industry and agriculture, and greater production on farms. Now Hitler brought forward his program for making Germany as nearly self-sufficient in food production as possible. More intensive farm production meant more fertilizer; more fertilizer meant more nitrates snatched from the air by the IG Leuna works and more profits for IG, as foreseen by Duisberg.

To a statistical eye, the prosaic balance sheet of IG Farben for the years from 1932 to 1943 reads like a victory proclamation. IG was always a money-maker. Even in the worst years of the depression it showed profits. But after 1932 IG hit a bonanza. Each year sales and profits took another big jump. The gross profit for 1943 was more than sixteen times as great as it had been in 1932. IG Farben was a giant corporation when it was first organized in the middle of the 1920's, yet the gross profits of eight hundred and twenty-two million marks in 1943 were greater than the total capitalization of IG in 1925.

And the best was still to come. Until the shooting war began, business was somewhat bound by the normal practices of buying and selling. But after the Wehrmacht started its triumphal march, the whole continent of Europe lay open for outright plunder. At the high water mark of Nazi conquest, Dr. Duisberg's dream of a closed economic bloc from Bordeaux to Odessa became a fact.

7
Bloody Harvest

There were celebrations in Germany when the Munich Pact was signed on the last day of September, 1938. Without firing a shot, Hitler had won from Messrs. Chamberlain and Daladier the strategic gateway to all of Central and Eastern Europe—the border areas of Czechoslovakia. The next day troops under Colonel General von Leeb crossed the Bohemian Forest to seize the prize.

Among the telegrams of congratulations which poured into the Chancellery in Berlin was one from the President of IG Farben. It read:

"To the Fuehrer and Reichschancellor Adolph Hitler, Berlin: Profoundly impressed by the return of Sudeten-Germany to the Reich which you, my Fuehrer, have achieved, the IG Farbenindustrie A.G. puts an amount of half a million Reichsmarks at your disposal for use in the Sudeten-German territory. (signed) Hermann Schmitz."

Schmitz was not playing courtier when he said he was impressed. A week before the Pact of Munich was signed he had concluded a deal with the Nazi government whereby IG

would take control of the most important dye works in Czechoslovakia. The 500,000 RM was not a purchase price, hardly even a bribe. A week after the troops moved in, an IG man was in charge of the Czech dye works.

For German Big Business World War II was a chance for plunder on a scale without precedent in history. On this point the teamwork with the Army could not have been better. As a spokesman for the German General Staff wrote:

"The enemy must no longer be able to produce; he must no longer plague our lives with renewed competition; he must no longer retain a productive industry capable of waging a new and perhaps more successful war. He must therefore be crushed—and his productive forces taken over."

On a summer day in 1945, with the war over and the Germans left to contemplate their bomb-ruined cities and plan another revival, an American officer was buttonholed on the streets of Frankfurt by a director of IG Farben. The Farben man was in an optimistic mood; many of his fellow-directors had been jailed for questioning; he had been overlooked and he thought he saw a future for himself. The American was one of the team under Colonel Bernard Bernstein investigating IG Farben. The German asked him:

"Why do you keep us shut down? We didn't do things like that." And he grinned. "If we had captured this country, the factories would be going faster than ever—producing for us."

The Wehrmacht successively overwhelmed Austria, Czechoslovakia, Poland, Norway, Holland, Belgium, France, and all the rest of Central Europe. The history of its march was written in newspaper headlines. The march of the German industrialists did not get into the newspapers, but it covered as much ground. IG Farben, for one outstanding example, picked up valuable properties in every country the Nazis conquered. On this point the record established by Colonel Bernstein's investigators was so clear that even Max Ilgner, who never admitted anything he did not have to, said:

"The general policy of the Nazi government in respect to the conquered countries was to take as much out of those countries as possible. . . IG played an important role in adapting the industries of those countries to the purposes of the Nazi war machine. . . IG acquired new companies, augmented its participation in other companies and made a tremendous amount of new capital investments in the conquered countries."

Another of the Farben directors, Dr. Kuepper, made an even more pointed admission:

"To my knowledge, IG Farben, its directors and officers, fully approved the Nazi aggression against Poland, Czechoslovakia, and France. IG profited considerably from these conquests."

In general, the record of IG furnishes examples of every major crime committed by the Nazis in the course of World War II. Where the individual fascist soldier sent home everything he could lay hands on from sausages to shoes, IG grabbed whole factories. IG played a part in sending millions of slave workers from the conquered countries to work in Germany. IG had a secret, but sufficiently horrible, share in the operation of the ghastly murder mills like Auschwitz and Maidanek.

The one Hitlerian crime which most respectacle Germans decried in talking to Americans was the campaign of extermination against Jews. Perhaps this one was admitted because it had been so openly proclaimed for so many years. Invariably, Farben directors who were trying to give themselves clean records in the eyes of the Americans would dig out of the past the case of some pet Jew whom they had helped to escape from the country or stay in business a little longer. Yet in spite of all that, as will be seen in the record of plunder in each country, IG Farben frequently profited by the seizure of "non-Aryan" property.

Austria—

The taking over of Austria had been on the program of German nationalists for many years before Hitler. In case it has been forgotten, Hitler's stated reason for moving into Austria in March, 1938, was that the Austrian Nazi Party was being abused. Whatever the reason, the Nazis were in Vienna to stay. An American weekly, *The New Republic,* indignantly proclaimed it "Hitler's Worst Mistake!"; the idea was that this time Hitler had so outraged the feelings of the world that he could not get away with it. Unfortunately some years were to pass before Hitler's bloodsoaked empire was taken away from him, and then it was by force of Allied arms, a mile at a time, rather than by the power of pure indignation.

For IG Farben the prize in Austria was a leading chemical concern, the Pulverfabrik Skoda Werke Wetzler. IG had been after the Skoda Werke Wetzler for some years, but had been unable to buy out the control of the Austrian concern. The presence of the Wehrmacht on Austrian soil ended the argument.

The procedure used in taking over Skoda Werke Wetzler was an example of what became standard practice all over Europe. The actual control of the firm lay with one of the big Viennese banks, Creditanstalt. Creditanstalt was controlled by the Rothschild interests. After the Anschluss the Rothschilds in turn were controlled by the higher law of Nazidom which decreed that there was no room in Europe for anyone tainted with Jewish blood. The Creditanstalt was taken over by the Deutsche Bank of Berlin.

The Deutsche Bank was one of what were known as the Big Six German banks. It had the advantage of being big, German, and safely Aryan. Along with the rest of the Big Six, it did a tremendous business as a respectable fence in stolen property.

Max Ilgner had been entrusted with the negotiations for

control of the Austrian chemical industry. After the bad blood of the Rothschilds had been cleansed by the Deutsche Bank, he reported to IG headquarters that "The management of the Creditanstalt and the Skoda Werke Wetzler . . . has changed . . . We are facing a new situation."

Now finally IG was able to receive authorization from the Nazi government to acquire the stock of Skoda Werke Wetzler. The IG negotiators quickly broadened their Austrian foothold. They picked up several other chemical works, liquidated a few, and merged all of them into a newly invented concern, Donau-Chemie A.G. Through Donau-Chemie, IG Farben had the entire Austrian chemical industry in its hands.

That Donau-Chemie was a structure built of stolen goods was clear. Dr. von Schnitzler described the transaction as follows:

". . . IG acquired the Skoda Wetzler Works from the Deutsche Bank which had acquired the Skoda Wetzler Works by participating with the Nazi Government in a theft. . ."

It was IG's turn to repay the Nazis, by turning Austrian chemistry to service in Hitler's war. They not only did this, but they greatly expanded Austrian capacity for making such war essentials as lubricating oil, high octane gasoline, magnesium, and chlorine. The expansion program called for expenditure of nearly two hundred million marks, of which about half was put up by the Nazi government.

Czechoslovakia—

There was only one major chemical concern in Czechoslovakia. This was Aussiger Verein of Prague, fourth largest chemical concern in Europe. It was on this company that IG set its sights when Hitler began his agitation about the homesick Germans in the Czech Sudetenland in the summer of 1938.

Evidently the directors of IG Farben made an accurate estimate of the intentions of the Western Powers. Months

before the signing of the Munich Pact had sent Hitler eastward with Chamberlain's blessing, IG called a meeting with its representatives in Czech agencies. In July a complete analysis of the Aussiger Verein was made, so that IG would be prepared to step in at a moment's notice when the Czech border was pried open with British and French approval.

A week before the march into the Sudetenland, IG had successfully completed its deal with the Nazi authorities. Drs. Wurster and Kugler, both IG directors, were appointed commissars for the Aussiger Verein plants. And within a week after the annexation, Wurster and Kugler were placed in their new jobs in the Czech chemical plants. IG no longer had to worry about the Czech dye and chemical industries falling into other hands; still less did they have to worry about Czech industries staying in Czech hands.

IG took a long view of its plunder operations. It was rarely willing to seize a company gangster fashion and rest content with mere physical control. IG was a conservative organization. Questions of title and legal claim might be revived some day, after the war was over. Therefore, IG moved in behind the Wehrmacht in conquered countries not just to *seize* but to *buy* properties, on its own terms.

Drs. Wurster and Kugler were in charge of the Czech company, but the stock was still in the hands of Czechs and a Belgian group. IG began negotiations aimed at outright purchase. The Czech owners proved stubborn; they liked their shares, or perhaps they saw no reason to stand still while they were being robbed and so give a legal color to the operation. In any case, more pressure was required.

Once again IG worked a squeeze play, this time through another of the German Big Six banks, the Dresdner. The Dresdner Bank brought pressure to bear on the Czech Zivnostenka Bank with the threat of having that bank itself permanently taken over by the German government. Since the Zivnestenka held a large block of shares of the Aussiger

Verein, it was able to convince the managers of the chemical concern to do business with IG.

Concerning the remainder of the negotiations, Dr. von Schnitzler commented:

"Seldom has a great international economic agreement containing so many clauses and covering so many domains been concluded so speedily as this. In one day the agreement in principle was reached and the lump sum was fixed. . . (Within another month) the agreement and all its bylaws were signed."

In Czechoslovakia, as in Austria, IG Farben thoroughly exploited its breakthrough. Coal mines and other dye works were taken over making it possible to organize the entire Czech dyestuffs industry into an IG subsidiary.

Poland—

In Poland there were three dye companies which IG coveted: Boruta, Wola, and Winnica. Immediately after the four-week campaign which knocked out the Polish armies IG took steps to acquire control of all three.

It can be seen that in all cases IG Farben was particularly anxious to take over every possible dyestuff competitor. Dyestuffs were the oldest and most basic of IG's lines of production. Year after year they continued to yield rich profits. Emergency war production might prove uneconomic and slacken off but IG expected its dye trade to go on forever.

With regard to the Polish companies there was another consideration. The attack on Poland had finally brought England and France into the war. It was to be nearly a year before there was heavy action on the Western front, but, when it came, IG's old, established plants in western Germany would be vulnerable. The great Ludwigshafen plant, for example, was a scant thirty miles from the French frontier. Not even the Nazis expected the campaign against France to end as quickly as it did. The plants in Poland would be a good hedge against any risk in the west.

Negotiations for the Polish companies began one week after the start of the invasion. Just two days after the fall of Warsaw, the Nazi Ministry of Economics placed two IG men in charge of operations at all three Polish dye plants.

Following usual procedure IG now moved to buy the properties. Boruta was the biggest of the three and IG bid first for it. But this time there was a hitch.

Plunder had become a highly developed system in the Nazi State. The pay-off had to follow many and devious channels. A government agency known as the HTO acted as trustee for the stolen property in the east; it refused to sell the Boruta works to IG. This time IG was dealing with SS men rather than bankers.

Finally, however, in the Summer of 1940, the HTO informed IG that sale of Boruta would be considered. It took another year and a half of negotiations before the sale was completed. There is no record of how much was paid to whom to grease the way, but Dr. von Schnitzler included the following instructions in one of his letters:

"Enclosed are copies of my exchange of letters with Dr. J. C. Eichenauer. . . As you know, Dr. Eichenauer was highly instrumental in (getting) SS Gruppenfuehrer Greifelt (to agree) to the acquisition of 'Boruta' for the IG, and I therefore request that a very cordial invitation be sent to Dr. Eichenauer."

The second dye plant, Winnica, presented a different and easier problem. Supposedly, Winnica was owned by IG's French partner in cartels, Kuhlmann. Actually, IG already owned fifty per cent of Winnica with Kuhlmann acting as its undercover agent. After the conquest of Poland, IG simply dropped the cloak and took over its share of the ownership in its own name. When France joined the long list of the defeated, and Kuhlmann became a subsidiary rather than a partner, IG had entire ownership of Winnica without the inconvenience of bartering with SS men.

The Wola company proved easiest of all to knock over. Von Schnitzler simply pointed out to the Ministry of Economics that the ownership of Wola was non-Aryan. The plant was shut down, its equipment and materials sold. IG bought some of the equipment for itself. The proceeds of the sale disappeared into the complicated channels of Nazi plunder. The family which owned the Wola Company received nothing. Dr. von Schnitzler did not testify as to whether he had helped members of the family to escape from the country.

Only one dye concern in Poland stayed out of IG Farben's hands. It was a subsidiary of the Swiss dye cartel called Pabjanice. The Swiss were asked if they wanted to sell it but replied that they did not. Pabjanice remained independent through the war. It is not likely that Germany feared the Swiss Army. It seems probable, therefore, that the Germans respected Swiss property rights in return for other services rendered by the Swiss, services like the protection of the hidden link between IG Farben and IG Chemie and the rich IG holdings in America.

France—

To the astonishment of every general staff in the world, including the German, the betrayed French Army collapsed after six weeks of attack by the Wehrmacht. Paris, the wonderful city of light, was darkened. The French people prepared for their four years of Hitler's New Order, four years of hunger, degradation, and painful resistance.

The catastrophe of France was a great windfall for IG Farben. There was only one really big chemical concern in France, the Kuhlmann Company, but it was second only to IG itself on the continent of Europe. Etablissements Kuhlmann was an old partner of the IG in cartels. As Von Schnitzler remarked, "The relations between the German and French chemical industries have always been somewhat closer than the relations between the other producing companies in the

dyestuffs domain." Now the old partner, fallen on hard times, would be taken in as a servant.

The original plan of IG was simply to see to it that the French plants were put to work for the Nazi war effort. But it was soon evident that this was unnecessary. The leaders of the French chemical industry, headed by Joseph Frossard, quickly expressed their eagerness to help in any way. IG accordingly raised its sights. Von Schnitzler again was in charge of the negotiations. As he described his own tactics: "I thought it advisable to let them [the French] simmer in their own juice and to wait till they asked for . . . negotiations through the official channel of the armistice commission."

Frossard was disturbed by the rebuff to his offer to collaborate. An IG agent wrote the following description of a meeting with Frossard in Paris:

". . . After this introduction, during which M. Frossard had tears in his eyes, he started to talk about himself. He is at present sixty-two years old, and if the IG does not want to negotiate with him he would be prepared to resign immediately. The same refers to M. Duchemin. . . One sees absolutely clearly at Kuhlmann's that Germany will win the war and that the organization of the European economy will be made under the leadership of Germany. Frossard offers to put his whole industry into the services of Germany to strengthen the chemical potential for the continuance of the war against England. Kuhlmann would be prepared to produce all preliminary and auxiliary products for the IG which would be desired from the German side. He wants a confidential collaboration. . ."

It should be noted that Frossard was not the exceptional collaborationist in industry. While a dozen or more Frenchmen of the resistance might be killed trying to save one Allied flier the leading French industrialists were willingly accepting the terms of the Germans. Dr. von Schnitzler, from his own experience, testified that:

". . . based upon the 'slogan' of collaboration, an intercourse between the German and French industries had developed, which practically included the whole French industry. . .

". . . I may cite the name of M. Marcel Boussac, the greatest industrialist in the textile field. His works were occupied to a large extent for direct or indirect orders of the Wehrmacht, and he himself was frequently with German representatives at luncheon and dinner parties. The same applies, as far as I can judge it, to the iron and steel industry, and the work done by Schneider-Creusot for the Wehrmacht is publicly known."

Finally IG allowed the negotiations with the French chemical industry to begin. The meetings were held, with all the formality of diplomatic convention, in the German resort town of Wiesbaden.

The French repeated their position. They were more than willing to help the Nazis, but they hoped they might be allowed to retain ownership of their own industry. They proposed a broadening of the cartel pact which had existed before the war. The most stubborn of the French industrialists, Duchemin, was impertinent enough to remind Von Schnitzler of a speech the latter had made in 1937, highly praising the cartel.

Von Schnitzler replied: "After all that has happened, the French standpoint regarding the validity of the cartel must be considered an imputation and insult."

In the end, with Frossard leading the way, the French capitulated. The entire French chemical industry, including, besides Kuhlmann, the St.-Denis and St.-Clair-du-Rhoone companies, was organized into one new concern called Francolor S.A. And IG was given fifty-one per cent of the stock of Francolor. There were eight members on a Council of Administration for Francolor, four from IG and four representing the French. As a reward to Frossard for his co-operation he was allowed to be president of the Council. The French com-

panies gave up everything to the IG subsidiary: their plants, their land, their foreign holdings, their patents, and processes. IG saw to it that all Jews were removed from positions in the French companies. French chemicals were completely removed as a threat to IG in foreign markets.

According to the statements of IG officials, the least valuable parts of the French property to them were the patents and manufacturing processes. IG had maintained a safe lead over French chemistry in technical progress. And this technical advantage remained an active danger even after the war was over and France liberated. It was quite possible that the French chemical industry, in the hands of men like Frossard, would want to re-enter cartels to get the benefits of German methods. On this point Von Schnitzler had no doubts. He stated for the American investigators:

"I am certain that the French industry would be only too glad to resume cartel relations with IG." And he added with perhaps a note of hopefulness, ". . . If this supposition of mine is right, I am ready to elaborate more fully the propositions which are adapted to the present situation."

Plunder was IG Farben's main contribution to the Nazis' roster of special war crimes. But IG also had a hand in some of the simpler and even dirtier crimes.

When the Wehrmacht collapsed and the Allied armies raced to the meeting on the Elbe, it was revealed to the world that there were as many as five million foreign slave workers in Germany. They had been seized in their homelands, sent to Germany, and held at forced labor. Many told stories of being picked up in trucks on the streets of their home towns. They had no time to pack clothes. They could not tell their families. They simply disappeared.

IG played its part in recruiting slave labor. For example, one of the conditions of collaboration with the French chemical industry was that several hundred skilled French workers

be shipped to Germany for use in the plants there. A few came willingly; these wanted to stay in Germany after the war was over. The vast majority wanted to go home as soon as possible, fair enough indication that they had been forced to come. In some of the IG plants, the bulk of the unskilled work was done by slave labor, people brought in from the farms of Central Europe.

And then there was the matter of poison gas. As the war developed, poison gas was the one form of chemical warfare which was not used. But both sides were prepared for its use. On the German side, IG Farben produced fully ninety-five per cent of the poison gases.

It developed in the course of investigation after the war that IG had not been content with the types of gas which had proved effective in World War I. Experiments were conducted with new and better types.

These experiments led to the discovery of at least one gas, called Tabun, more deadly than any known before. According to IG officials no gas mask of known design would give protection against Tabun. It had to be handled entirely in glass containers. Tabun apparently was produced in a plant in eastern Germany at Dyhernfurth. The IG men who were questioned on this point reported with some satisfaction that the plant had been completely destroyed before the Russians came in.

The lethal qualities of Tabun were first tried on monkeys. The gas was a success. But for the well-trained scientists of the IG laboratories a test on animals was hardly conclusive. Under the supervision of a Professor Gross, the gas was tried again, this time on prisoners from the mass-murder camp at Auschwitz.

Much of the evidence on Tabun was uncovered by a British officer, Major Edmund Tilley. In the course of his investigation he questioned Dr. Fritz ter Meer. Ter Meer was one of the half-dozen most important men in the IG: he was con-

sidered an outstanding scientist; he had been in charge of the reorganization of the entire Italian chemical industry; he was a member of the central committee of the IG managing board of directors. The following is quoted from Major Tilley's report of Ter Meer's testimony:

"Ter Meer was asked if he felt that experiments on human beings were justifiable. He argued that . . . no harm had been done to these KZ [concentration camp] inmates as they would have been killed anyway. . ."

Unfortunately for Dr. ter Meer and Professor Gross and all the Nazis big and small who had a part in the mass production of murder at Auschwitz, they could not kill enough people.

8
Questions and Answers

Before World War II, to have gotten an interview with one of the higher ranking IG Farben executives would have been a minor achievement of reporting. The files of IG covered acres of floor space, but they were kept tightly locked from the prying eyes of outsiders.

At the war's end, the trick of interviewing was mainly one of laying hands on the Farben leaders. In going through the files the problem was to find the important documents in the chaos into which they had been thrown.

What was true of IG was true of Germany as a whole. The country lay open for inspection. The right of entry had been won at terrible cost, but at least it was finally possible to look around, pick up pieces, examine them, and determine what had made them run. The chance was unique in history.

Much more than a historian's interest was at stake. Germany had been the outstanding example of the aggressive war-maker of the twentieth century. What was the nature of the fascist beast which charged headlong to its own destruction in war? The answer to that question might help with

another matter rightly judged to be of some importance: how prevent further war in a world armed with atomic weapons?

This is not to imply that nothing could be told about the Nazis at the full-tide of their arrogance and power. But what could be told, sometimes could not be *proved.* What was proved sometimes did not *convince.* There are still the eternal problems of investigation: a multitude of facts, sometimes confusing and conflicting; and, an almost equal multitude of observers with axes to grind and theories strong enough to warp every fact in the World Almanac. But the answers to a few basic questions should now be clear enough.

Who Ran Germany—Hitler or Big Business or the Army?

After a few years of the Hitler regime it was impossible to deny that the starting point, in 1933, had been an alliance of the Nazi Party, organized Big Business, the German General Staff, and important sections of the government bureaucracy. All of the main parties to the alliance said so. Robert Brady, American economist, described the German fascist state as ". . . a dictatorship of monopoly capitalism. Its 'fascism' is that of business enterprise organized on a monopoly basis, and in full commaand of all the military, police, legal and propaganda power of the state."

But a later argument ran: to be sure, Big Business in Germany made the decisions which put Hitler in office. It was a mistake, stupid perhaps but honest. Once Hitler got in he turned on his benefactors. He shoved them aside. And the Nazis muscled in, gangster fashion, and took over much of business. The two cases used over and over to prove this thesis are those of the steel magnate Thyssen and the sprawling state combine, the Hermann Goering Werke.

Thyssen of course was one of Hitler's earliest benefactors. And he was indeed thrown out of Germany. There is nothing in the least remarkable about this. If there is anything remarkable, it is the fact that there were not many more cases

like Thyssen's. What business community in the world is so stable that it has no "turnover"? In building up fortunes there is constant ebb and flow. When Richard Whitney was sent to jail, it did not follow that American banking and investment had passed into the hands of the courts.

The main fact in the Thyssen case is this: Thyssen was a maker of steel, but when he was driven from Germany there was no change in the ownership and control of the German steel industry. The Krupps remained as entrenched as they had been since the nineteenth century. The great trust, Vereinigte Stahlwerke—with which Thyssen himself had been affiliated—was in essentially the same hands in 1945 as in 1932. Canny businessmen like Flick simply moved over and occupied a little more space at the directors' table.

As for the Hermann Goering Werke, it was a serious business competitor. Dr. von Schnitzler of the IG commented bitterly that in the loot of Czechoslovakia the pickings were slim because "Goering took everything over for himself so that there was no opportunity of the IG technicians to develop anything in Czechoslovakia." In this connection Von Schnitzler forgot to mention that IG merely absorbed the whole Czech chemical industry. But the Goering Werke was something to worry about. After the seizure of Belgium, IG engaged in long and inconclusive conflict with Goering for complete control of the important Belgian Solvay Chemical Company.

And once again the remarkable thing was that there were not more cases of this sort. The sudden emergence of new fortunes may be interesting but it has certainly happened before. In the United States during both world wars, many large fortunes emerged from nowhere. Some already established fortunes became very much bigger—as, the Kaiser and Victor Emanuel interests. In the Goering case, political influence paved the way for business success. And this is not unknown in the United States either. Mr. George E. Allen, frequently mentioned in the press as an entertainer of Presi-

dents, ran up an impressive string of corporate directorships. As an entertainer, Goering could only be compared with the Emperor Nero, but the difference is not essential.

The same things can be said about the generals. There were some political casualties: Von Blomberg and a few others. But what nation went into and came out of World War II with the same all-star line up of generals? Of the ranking officers in the German Army in the last stages of the war, only Rommel and perhaps a few, like Milch, from the Luftwaffe, were not pure-bred Junkers. Once again, the remarkable thing is how little effect the Nazis had on the upper circles of the officer corps.

For one Thyssen there were dozens of the most important magnates who retained all their privileges and prestige and prospered. Similarly, for every *Von* Blomberg, there were *Von* Bocks, *Von* Leebs, *Von* Rundstedts, and *Von* Mannsteins who preserved the full tradition of their war-making class.

As far as profits and plunder are concerned, IG Farben is a demonstration of how well German Big Business fared under Hitler. As far as special privileges go, Germany in 1945 was full of cases which showed that the old privileges were flourishing without check. There were still company towns run at the pleasure of a big industrialist, like the shoe manufacturer Richard Freudenberg in Weinheim. A Farben director walking through the streets of Frankfurt, or a Vereinigte Stahlwerke official in Duesseldorf, was greeted by a succession of obsequious bows, hat-raisings, and heel-clicks.

Frankfurt-on-the-Main was headquarters town for IG Farben. Frankfurt was too big to fall in the ordinary category of a company town, but it was dominated by IG more thoroughly than, say, Pittsburgh ever was by the Mellons or any combination of steel makers. The *Frankfurter Zeitung*, probably Germany's most internationally famous newspaper, was both owned by Jews and anti-Nazi in policy. The paper was

suppressed, naturally, by the Nazis. Its editor, Heinrich Simon, escaped to the United States and was killed under mysterious circumstances on a street in Washington. The *Frankfurter Zeitung* was started again, not by the local Gauleiter Sprenger, but by IG Farben, operating characteristically through a cloaked syndicate headed by a Professor Brunner.

Before Hitler, President Schmitz of the IG had been personal adviser to the Chancellor of Germany, Bruening. After Hitler, Schmitz became an honorary Reichstag member and an almost equally high-ranking IG official, Professor Carl Krauch, became Goering's trusted adviser in the carrying out of the Four Year Plan and, later, on the industrial problems of the war.

From all the evidence the fascist state came into being as an alliance of Big Business, the Army, and the Nazi Party. The alliance was preserved in full force to the end. If there was any adapting, it was on the part of the Party which moved closer to business by purging its own radical and anti-monopolist members.

Would Survivors of the 1944 Plot Against Hitler Curb IG Farben?

A favorite pastime of investigators in Germany after the war was over was the hunt for anti-Nazi Germans. There were a few. Outstanding among them were the few survivors of the concentration camps, blessed with great strength, limitless will, and luck. These few, it might be added, suffered profound disappointments during the first year of their liberation.

The most overt move against Hitler had been the plot of July 20, 1944, led by a coalition under Dr. Goerdeler. The Goerdeler plot therefore was the subject of analysis by many branches of Allied intelligence. The plot had come reasonably close to success. It therefore had important support.

Presumably some of the supporters were still around. Were they the people around whom a new, free, peaceful Germany could be built?

The answer, flatly, is: NO. The reasons are worth giving because the suviving supporters of the Goerdeler plot have an excellent chance of taking a place among the next rulers of Germany. If this occurs, IG Farben in one form or another will probably emerge again.

Goerdeler's backers were, indeed, influential. They included members of families in the upper circles of both business and the Army. They were, in short, the same kind of people as those who managed IG Farben. A German woman belonging to a family which controlled one of Germany's two biggest electrical concerns was employed as the manager of a mansion set aside as a billet for an American general officer in Berlin. She commented sadly on the loss of blue blood in the failure of the Goerdeler plot:

"The ones we didn't lose on the Eastern Front we lost on the 20th of July."

The people behind the July 20th plot were so influential that they would have stood a fair chance of turning Hitler out of office at any time after 1933. It is therefore particularly significant that they waited till the middle of 1944, when their chances actually were poor because the Nazis had been so long entrenched and many of their potential supporters had been frightened off in the belief that it is bad to make violent changes in the midst of a war.

They waited as long as they did *because up till July, 1944, they had been satisfied with Hitler.* There was no sign of the plot when the first attacks were made on Austria, Czechoslovakia, and Poland. There was even less sign of dissatisfaction when the Wehrmacht had overrun all of Western Europe. But by the middle of 1944 the Nazis were being driven out of Russia. And in June, 1944, the Anglo-American armies made good their landing in Normandy. It was clear finally that Ger-

many was beaten. Even more, it was clear that there would be no negotiated peace with the Western Allies which would enable Germany to continue the war in the East with new support. And so, one month later, the Goerdeler plot was tried. Hitler was to be killed, not because he was wrong, but because he had failed.

The high government officials, business leaders, and Army officers who supported Goerdeler were as ultra-nationalistic as the Nazis. War was as much a natural part of their thinking as of Hitler's. They were simply a more purely aristocratic elite, rather than a beerhall elite. And they are all the more dangerous. "Denazification" and "demilitarization" were set as the major goals of Allied occupation in Germany. The goals will never be reached as long as only the old street fighters of the Nazi Party are removed. Most dangerous of all were the upper crust of business, the government bureaucracy, and the Army who could claim they were against Hitler—after June, 1944.

Do Cartels Stabilize International Relations?

The record of IG Farben is so clear-cut an answer to this question that it is only worth while discussing because the old cartel argument has been revived again in spite of everything that has happened.

A cartel stabilizes nothing. It merely *records* a relationship between great producers which exists at a particular time. The cartel may be written as a contract for one hundred years but, as changes occur in the relationship of the signers, it will fly apart, sometimes with explosive violence. The force which destroys cartels is the faster development of one or another of the parties. And because the weaker parties in cartels are kept in place while the stronger continue to grow, the cartel becomes a perfect breeding place, first of economic war and finally of a shooting war.

The most perfect irony in the history of cartels was the

signing of the permanent peace treaty between British and German business at Duesseldorf on the very day that Hitler was repudiating the Munich Pact by marching into Prague, thereby outraging even Neville Chamberlain. The whole history of IG Farben demonstrates that cartels do not even stabilize themselves, much less international relations between governments.

Probably the clearest case was that of France. There IG's cartel links had been particularly binding. They had also been particularly effective. French chemical output had been materially reduced at a time when IG was blandly expanding. And when IG was far enough ahead, and shared in the victory of the German nation, the cartel was not even modified. It exploded into thin air and the French chemical industry was taken over bodily.

Political alliance was no safeguard, either. Records of the IG indicate that the leadership was thinking seriously about the day when it would have to take over the chemical works of the Fascist ally, Italy. Cartels accomplish many things, including the raising of prices and burying of inventions, but they do not add to the peace of the world.

Must a Cartel Be Inefficient?

One of the hopes of some anti-monopolists is that the big monopolies will defeat themselves. The monopolies become too big, so the argument runs. They become unwieldy and inefficient. They speed up their own decline by repressive practices. The smaller independent producer, if he is willing to take chances with new methods, can leap ahead.

There is nothing bad about this hope. It suggests that there can be an easy escape from the grasp of cartels. The main thing wrong with it is that it does not square with the facts.

It is true that IG Farben sometimes held back new products or methods. The sulfa drugs are a case in point. But by and large, IG's main stock-in-trade was aggressive pursuit of new

technical developments. There were American cartel partners of the IG who were willing to rest on what looked like assured markets and therefore held back new developments. IG rarely was willing. No matter how big IG Farben became, its efficiency remained genuinely impressive. IG was willing to risk huge investments in new processes. And these risks did not constitute waste. IG's birds generally came home to roost.

By the account of some Germans who ought to know, the Nazi war effort was not the miracle of efficiency which the outside world sometimes was led to believe. Hitler's architect and minister of war production, Speer, told Americans that there were many flaws in Nazi production. War production for World War I may have been more efficient. Hitler was hampered in some ways by his own propaganda. The German women had been told, for example, that their place was next to the cow: they could divide their time between kitchen and bedroom and raise more warriors. As a result, even at peak of production, there were relatively fewer women in industry in Germany than in England or even in the United States. What saved the Nazi economy was the ready co-operation of collaborationist industrial leaders throughout Western Europe.

But IG, at least, never lost ground technically. To the very end it maintained its successful combination of scientists and businessmen in its leadership. To judge from the record of IG, big monopolies cannot be expected to fall of their own weight. Where monopolies act against public interest, the solution of the problem is political. Certainly there is no automatic safeguard in purely economic forces.

Is Germany Through as a War Menace?

In the American zone of occupation in Germany only one town of any size escaped serious damage. The one exception was the beautiful old university town of Heidelberg. Munich, Frankfurt, Stuttgart, Nuremberg—all are smashed and

broken cities. The town of Wuerzburg was almost obliterated in one twenty-minute air raid at the end of the war, when a Nazi commander refused to surrender the town. Berlin is a huge place, sprawled out over as much space as Chicago. You can walk all day through Berlin streets and never pass a block in which most of the buildings were not damaged. In Berlin the damage was done close up, with artillery, mortars, and grenades, in street fighting on the most colossal scale. For most of the other cities destruction came from the air.

At first glance it looks as if Germany were ruined beyond hope of repair. It is hard to conceive of another war menace rising out of such wreckage.

And yet, by the careful estimates of IG Farben engineers, IG at the end of the war had suffered a loss of only thirteen per cent of its productive capacity. The estimates for the rest of German industry are not far from this percentage. A great mass of evidence about the status of industry was gathered by the U. S. Strategic Bombing Survey. The air forces had an important part in making the survey: if there were any bias it would be in the direction of proving that bombing won the war. And the Strategic Bombing Survey demonstrated conclusively that the bulk of German capacity to produce was intact. In spite of all damage, German industrial capacity was greater at the end of the war than at the beginning. The greatest single bar to production was the breakdown of all transportation; and this had largely been brought about by the Germans when they blew up their own bridges.

On close inspection it turned out that it was very much easier to destroy most of the houses in a city than to hit a particular factory—even by daylight and even assuming one really knew where the factory was. It turned out that a factory building could absorb tremendous punishment, until it looked like a complete wreck, without serious damage to the machinery on the inside. And it turned out that the Germans, through their practice with war games starting back in 1934,

were excellently prepared to make good any damage done. They turned their tremendous over-supply of machine tools to good effect, and plants which had seemed to be destroyed were back in operation sometimes in a matter of weeks.

In this war Germany was beaten on the battlefield, not by economic pressure. In the last days of the fighting Germany was still able to produce. And it will be able to produce weapons full-blast again long before the people in German cities have moved out of cellars—unless much more equipment is taken as reparations than has been taken so far.

As for the majority of the German people, there is no evidence that they would not today blindly follow another call to arms. The Nazi Party as such would undoubtedly be rejected by the Germans. It led the way in a losing war. Yet the bulk of Germans who tell foreigners eagerly that they were never Nazis, will indicate in the next sentence that they are intensely nationalistic. At least in western Germany, hatred of Russia is still virulent; hatred of the French is only a little less so. Every American in Germany has seen the happy reaction among Germans at any sign of tension between the Western Allies and Russia.

Of course Germany no longer has the most powerful army in the world. But Germany can still fight. Its industry is still potentially strong. And above all, Germany remains the crossroads where most of the main issues of international relations are joined and must be settled.

Could the German Drive to War Have Been Stopped?

Clearly, after Hitler was installed as Chancellor of Germany the world had run out of alternatives. Hitler talked war, he acted war, he meant war. This was clear enough before 1933; it was unmistakable afterwards. So the question changes to one of domestic German politics: could a fascist regime have been prevented? Looking backward into history it is easy to say that everything was inevitable, just because

it did happen: the actual events are written into headlines, the alternatives fade away. Yet Hitler's backers did not take his victory for granted. They could not easily shake off the fact that the Socialists and Communists together drew thirteen million votes. The Nazis themselves, in the best position to measure the slaughter of opponents in the concentration camps, did not relax and open their membership books until 1937. Then, feeling secure, they took in several million eager opportunists, to reach a total membership of seven million.

For Hitler's backers in Big Business, the issues were always clear. At any particular time it was possible to dicker with businessmen of other nations, strike a bargain, and record a division of markets in a cartel. But this only concealed the true dynamics of the situation. The German economy was the fastest expanding in Western Europe. What was an acceptable split of markets in one year would be unsatisfactory a few years later. This was why the frantic attempts at appeasement—the throwing to Hitler of successive chunks of smaller nations—were bound to fail. Sooner or later Hitler would bite into the solid meat of Great Britain and France.

The case of IG Farben illustrates how clearly the German industrialists saw what lay at the end of the road. Some of IG's heaviest investments during the 1920's were in synthetic nitrates, synthetic gasoline, and synthetic rubber. These were investments which could only pay if Germany was cut off from the much cheaper supplies of natural gasoline and rubber. And when that happened the world would be at war or close to it. Thus Germany's greatest corporation was willing to gamble its future on the coming of war. The managers of IG understood that, short of revolution, there would be no curbing the aggressive, outward drive of German business.

Did the Nazis Aim at Conquest of the Whole World?

After the fall of France the Nazi government requested the IG to submit its plan for running the chemical industries of

all conquered territories. The idea evidently was not a new one to IG Farben. Within a short time IG came back with a "New Order" plan, running to hundreds of pages in fullest detail. The New Order Plan of IG Farben gives a clear picture of just how much the Germans thought they could handle.

With respect to the conquered countries the plan was complete. Every phase of business in such countries as France, Belgium, and Holland would be run for the best interests of Germany. France, for example, would not be allowed to produce more pharmaceuticals: German production was ample and needed no competition. The Dutch photographic production would be stopped. In one section the IG writers express a sort of grudging admiration for the completeness of the Dutch quinine monopoly—before proceeding to sketch the way in which the quinine monopoly would be swallowed up in Germany.

At the time the government ordered the plans to be drawn up, in the Summer of 1940, the English armies had been pushed out of continental Europe at Dunkirk. Evidently the Germans expected a negotiated peace with England. Based on the notion of such a surrender, the plan called for an offered to British industry of the option of continuing as a German satellite, with the Germans taking a thirty per cent share of English concerns, and English markets sharply limited.

Plans for Eastern Europe, and particularly the Soviet Union, were curiously vague. In part this may have been caused by the fact that IG's information service in Russia was not as good as in other countries; a group of IG agents had been expelled from Russia in 1932. After the war some of the Farben officials revealed the anxiety they had felt about a fight with the Russians. Evidently not sharing the opinion of the American Chief of Staff, that the Red armies would last only a few weeks, they already feared that the

Wehrmacht might be destroyed in Russia.

But there was nothing backward about their plans for the American continents. They figured on exactly the same kind of economic warfare which had preceded the shooting war in Europe. Latin America was the first target; and the United States was the main enemy. As Dr. von Schnitzler wrote, ". . . outside of Europe the United States was the only strong country with which Germany had to reckon. Therefore we wrote in the 'New Order' that we intended to keep Germany as strong as possible militaristically in relation to the United States. We could accomplish this only by limiting the production of armaments in Latin America. We did not want in the event of an eventual conflict with the United States to permit Latin America to supply the U.S.A. with war materials."

As a part of the fight in Latin America it would be necessary to keep American business from retaliating in Europe. For example, the IG plan stated in connection with France that: ". . . it is necessary to remove the Americans from [the] French production scene with every means at our disposal." And the Farben men further said that ". . . we ought not be too much concerned as to the means we are to be allowed to use."

None of this planning was derived from Hitler's book, *Mein Kampf*. It was the hardheaded, detailed schedule of businessmen. Yet it was in the same spirit as Hitler's most power-drunk oratory. The Nazi State proposed to dominate just as much of the world as it could effectively reach. And as will be seen in the next two chapters, German business did a very successful preliminary job of infiltrating the Americas.

9
Big Fight—In Waltz Time

In IG Farben's blueprint for further aggression, the *Neuordnung* plan, the United States was always in the center of the target. The successive economic attacks on European nations were aimed at creating a position from which it would be possible to fight on equal terms with the American producers. And meanwhile, the fight against the Americans was already under way.

IG was the most powerful German corporation. On the American side, it would be hard to name a more powerful organization than Standard Oil of New Jersey. The two collided in the middle of the 1920's. Out of the conflict came what looked like agreement and stability. Out of the agreement came some major defeats for the United States when the openly declared war began. The battle between IG and Standard was never really settled in spite of all the appearances of friendship. If there was peace at all, it was because Standard was willing to make concessions. And Standard was willing to make concessions because they could be made mainly at the expense of the American people.

IG started its attack with a move against Standard's dominant position in oil. The attack ended with a rubber shortage in 1942 which almost cost U. S. the war.

Actually the championship bout between industrial heavyweights started in the laboratories of German scientists.

It has been said that civilization began with the discovery of the uses of fire and the wheel. The use of fire down through the ages has led to a never-ending search for fuel. This search has covered the globe. It has led, by boring, far into the earth's crust. It has led to the stripping of forests, the exhaustion of mines, and the draining of oil wells. In all cases, until the super-revolutionary demonstration of controlled atomic power, the fuel has always been some form of hydro-carbon, the combination of hydrogen and carbon occurring in almost infinite variety. In one way or another almost all fuel is the result of the sun's action on plant life, the process known as photosynthesis, through which hydro-carbons are built up.

The earliest common source of hydro-carbon was undoubtedly lumber, still a useful fuel. Very old and carbonized wood, in the form of coal, was found to be a much more efficient fuel. The industrial revolution was based largely on the discovery of efficient ways of converting the energy stored up in coal into steam power. As the steam engine itself was improved the need developed for even more efficient fuel. It was found in the form of oil, petroleum.

Oil in the form of asphalt was used as a building material by the Sumerians six thousand years ago. Herodotus described oil pits near Babylon. Pliny wrote about the use of petroleum in lamps in Sicily. Petroleum was probably the base of the terrifying "Greek Fire" which was used in the defense of Constantinople all through the Middle Ages. The ancient Chinese knew of the use of oil for heat and lighting and the American Indian used petroleum as a cure for rheumatism and sold it to the whites as "Seneca Oil." But all these uses of petroleum were on a small scale.

The big boom began in Pennsylvania in 1859. Since then men have hunted oil in all the corners of the earth. Production which was measured in hundreds of barrels jumped to thousands, to millions, and finally to billions of barrels each year. In 1944 the United States alone produced 1,678 million barrels of petroleum.

Oil made possible the automobile and the airplane. Oil revolutionized navies and ground warfare. Oil became the basis of power in the modern world. At the Locarno Conference, a few years after the conclusion of World War I, it was reported that oilmen were thicker than politicians in the corridors of the hotels. Small wonder, then, that Standard Oil of New Jersey was one of the great seats of world power, able to bend or break governments in countries all over the world. Two South American countries fought a war in the Gran Chaco with a big oil company behind each contestant.

Germany went into World War I poor in oil resources; this was one of the reasons for German defeat. Germany came out of the war starved for oil and determined never again to be caught without an oil supply. At this point, the trail of fuel-politics led to the laboratories of Dr. Bergius.

Coal had been Germany's most important raw material. German research men therefore had experimented widely with a bewildering array of coal products. For fifty years they had reveled in the brilliant discovery that materials did not have to be used by man as they were found in their natural state, but that through applied chemistry the natural materials could be changed into thousands of forms to suit man's needs.

In 1910 Bergius had begun to work on the idea of making light oils out of heavy oils. The heavy oils contain more carbon, less hydrogen, than the light ones. Bergius found he could make oils lighter by forcing hydrogen into them. World War I led Bergius and his research colleagues to take another big step. They had coal; they did not have oil. Why

not regard coal merely as an extremely heavy oil, and convert it into a light oil, say gasoline, by forcing hydrogen into it? The problem was no easy one, but one stage at a time, Bergius and the research men of the IG solved it. By the middle of the 1920's they had found out how to make huge quantities of hydrogen and to force it, under high pressure, at great temperature, and in the presence of suitable catalysts, into coal products. They could get gasoline out of a coal mine. Politically more important, they could operate a mechanized army of tanks and bombers and fighter planes without any source of natural petroleum.

IG Farben had never been in the oil business before. Now IG negotiators went to America to shop for a deal with Standard Oil. Standard was inclined to be aloof—but not for long.

Frank Howard, one of the officials of Standard Oil, went to visit the IG people at the great Ludwigshafen plant in March, 1926. It takes little imagination to visualize the barely contained glee with which he was shown around. The representative of the world's greatest power in natural oil was shown the process whereby ordinary coal could be converted into the aristocrat of fuels, gasoline. The shock was literally heard around the world. Howard wrote to the president of Standard Oil, Walter Teagle:

"Based upon my observations and discussion today, I think that this matter is the most important which has ever faced the company since the dissolution [of the original Standard Oil Company].

"The Badische can make high grade motor oil fuel from lignite and other low quality coals in amounts up to half the weight of the coal. This means absolutely the independence of Europe on the matter of gasoline supply. Straight price competition is all that is left. . .

"They can make up to 100% by weight from any liquid hydrocarbon, tar, fuel oil, or crude oil. This means that re-

fining of oil will have as a competitive industry in America and elsewhere, catalytic conversion of the crude into motor fuel. . .

"I shall not attempt to cover any details, but I think this will be evidence of my state of mind."

The show which the IG men at Ludwigshafen had put on for Frank Howard shook the great empire of Standard Oil. First, there was the immediate threat to Standard in the European market for oil. As Howard's letter stated, competition now could be only on the basis of price. But any price advantage which might be held by gasoline from natural sources could, and would, be wiped out by tariffs. Standard could be thrown out of Germany immediately; its whole position in Europe was weak. The stakes were considerable. Standard Oil of New Jersey had been active in European markets since 1880, when it had organized a French company. By 1891, Standard had also invaded the market in England, Denmark, Germany, and Italy. In Germany Standard operated mainly through the Deutsch-Amerikanische Petroleum A.G. This company, operating in a score of German cities, had assets of twenty-four million dollars and was ninety-five per cent owned by Standard. With other holdings (as, through Vacuum Oil) Standard took care of about half of the German market.

But the European markets were only a small part of Standard Oil's new worries. Gasoline from coal by the Bergius hydrogenation method was still expensive. But who could tell how long the price advantage of the natural oil producers would last? Time after time experience had shown prices dropping off as methods were improved following some major innovation. It would have been business madness to assume that gasoline from natural petroleum would always undersell gasoline from coal.

And finally, there was the unpleasant fact that there is a great deal of coal in known deposits on the earth and not

nearly as much petroleum. Exhaustion of wells is a ghost which must stalk the halls of any oil company. For a generation there has been the strong possibility of an end to oil supplies. Discovery of new fields keeps pushing the danger back but it remains on the horizon. Coal supply also is limited; it will all be gone in a small fraction of the time it took to make it in the depths of the earth. But at least there is so much of it that in spite of waste and greed and rapacious use, it will probably outlast petroleum by many generations.

By technical advances IG was able to threaten a body blow to the great Standard Oil Corporation—and to all oil producers. Because of the threat, Standard was now willing to make comprehensive agreements with IG.

The essence of the agreements which followed was expressed by a Standard Oil man as follows:

"The IG are going to stay out of the oil business proposition and we are going to stay out of the chemical business in so far as that has no bearing on the oil business."

As far as Standard's oil business was concerned, the new alliance was a success. The hydrogenation process for making gasoline out of coal would haunt the oilmen for the rest of their days, but at least Standard had been given a chance to ride the storm. Within the United States, Standard had control of the hydrogenation process; it could temper competition by holding down development. Abroad, Standard allowed the Royal Dutch Shell Company to be cut in on the deal through the I.H.P.—International Hydro-Patents Company. How Standard saw the use of the I.H.P. was made clear in a statement of policy in 1935:

". . . I.H.P. should not attempt to foment interest where none exists, [but] I.H.P. should be put in the position of an independent patent holding and licensing company, and allowed to attempt to sell its process wherever there is serious interest in hydrogenation. . . We cannot, by restricting the activities of I.H.P., other than as stated above, expect to do

more than retard slightly the development of coal, tar, etc. by hydrogenation, and a policy of repression will in all likelihood lose to us the advantage which is inherent in our present position. On the other hand, the policy outlined above will not tend to stir up interest in hydrogenation if it does not already exist. If coal, tar, etc. hydrogenation be feasible from an economic standpoint, *or if it is to be promoted for nationalistic reasons or because of some peculiar local conditions,* it is better for us, as oil companies, to have an interest in the development, obtain therefrom such benefits as we can, and assure the distribution of the products in question through our existing marketing facilities."

As one part of the bargain IG had insisted that it be allowed to retain control of development of hydrogenation in Germany. The Standard Oil policy statement quoted above shows how clearly the German position was understood. The "peculiar local conditions" referred to meant nothing more or less than the determination of the Germans to get ready for war and the understanding that one of IG's jobs in the preparation would be synthesis of gasoline, even if it meant loss of money.

But, of course, this was a part of the bargain which IG could have had without the top-drawer business diplomacy which went on between the two giant concerns, particularly in the years between 1927 and 1929. Even before Hitler, and unquestionably after 1933, IG could have conducted its work with hydrogenation with full protection of tariffs and subsidies.

The biggest part of the payoff for IG Farben was support by Standard Oil of IG's chemical position all over the world, *including the United States.* A token of the support was the fact that when IG organized its American IG Corporation in 1929, Walter Teagle of Standard Oil of New Jersey accepted a position on the board of American IG. When the details of the formation of American IG were made public and it was seen that such American public figures as Walter Teagle,

Edsel Ford, and Paul Warburg were on the board, Teagle was interviewed. The press carried his explanation that his presence on the board resulted merely from his pleasant personal relationship with the leaders of IG Farben; at the same time he announced that further arrangements were being made with IG which would provide for still greater exchange of manufacturing processes.

IG's chemical products, particularly synthetic rubber, received much more than a token protection, even against American companies, with results which were nearly disastrous for the United States.

Two new companies were organized to carry out the IG-Standard Oil bargain in the United States. The Standard-IG Company, eighty per cent owned by Standard, held the jointly-owned oil patents of the two companies. Another company, Jasco, was organized to take care of patents for products in the chemical field. Jasco was owned fifty-fifty by Standard and IG, though IG retained control over patents it originated, including all the patents for buna rubber. This meant that Standard could deal with American rubber companies concerning rubber patents, but only with the permission of IG Farben. A limited amount of research by American firms, so long as the controls were held by the Germans through their allies in Standard Oil, suited IG perfectly. There was always the danger that otherwise American firms would get too far ahead with synthetic rubber on their own. This was indicated by the testimony of one of the leaders of IG, Baron George von Schnitzler:

"(Question by interrogator): And it was in the interests of IG to have American firms experimenting with the production of synthetic rubber under license from the IG?

"(Von Schnitzler): That is right. I think in 1933 . . . when we were to discuss more or less different questions along this line . . . we were shown for the first time a large round cake of neoprene which was ready to be marketed and from the dis-

cussions we saw how strong Du Pont was getting in that field."

It was one thing to make deals with IG Farben in the happy days between the wars when it was possible to talk about the solution of the world's trouble through cartel building. The president of Standard Oil could say that he became a member of the board of the American IG because of his pleasant personal relations with IG people. In 1936 he could tell the press about his efforts to build trade with Nazi Germany, even though the Germans were pinched for foreign exchange, by all sorts of ingenious barter arrangements, including the shipment to the U. S. of enough harmonicas to provide two for every boy in the country. But it was something very different to try to hold on to the structure of a cartel when in due course the war which had been shaped by such cartels finally broke loose.

At least Standard Oil tried to keep its cartel with IG Farben alive, war or no war. As a Standard official said:

"Upon completion of that agreement [concerning catalytic cracking of oil] the war intervened because our grouping of interested parties included Americans, British, Dutch and Germans, and the war introduced quite a number of complications. How we are going to make these belligerent parties lie down in the same bed isn't quite clear yet. We are now addressing ourselves to that phase of the problem and I hope we will find some solution. Technology has to carry on—war or no war—so we must find some solution to these last problems."

In October of 1939, a month after the war had begun, Frank Howard of Standard Oil was in Europe trying to find a way to keep the Standard-IG cartel alive in spite of the war. At a conference with IG people in Holland an agreement was reached. Howard himself described the job done in the following terms:

". . . we did our best to work out complete plans for a

modus vivendi which would operate through the term of the war, *whether or not the U.S. came in.* All of the arrangements could not be completed, but it is hoped that enough has been done to permit closing the most important uncompleted points by cable."

The basis of the agreement was the splitting of control of the patents formerly held jointly by Standard and IG. Some two thousand patents were turned over to Standard, most of them oil patents in which Standard already held eighty per cent interest. The rubber patents and others of the same sort were turned over to IG, except that Standard retained the rubber patents for the United States, France, and the British Empire. The closeness of the tie remaining was indicated by the fact that even for the patents which were turned over to Standard, twenty per cent of all revenues would be credited to IG. As Howard said before a committee of the U. S. Senate:

"The IG could claim after the war, if the contracts were still running, an accounting and say, 'You made so and so much money out of these patents in these three countries. Under the original contract which you traded us out of in 1939, we would be entitled to a greater sum than we got. That trade you made with us in 1939 wasn't fair and you have to pay us so and so much money.' "

While the negotiations in 1939 were under way in Holland, Standard Oil was also keeping itself protected by giving the State Department an account of what was supposed to be its relationship with IG. Investigation by the Truman Committee later showed that in the chart which Standard Oil gave the State Department to show its tie-in with IG, Jasco was left out, and that, of course, was the company which held the synthetic rubber patents, under IG control. In other respects, also, Standard Oil used a free hand in its dealings with the State Department. In 1941, in spite of a request by Secretary of State Cordell Hull to break business ties with the fascist countries in South America, Standard decided to supply the

Fascist Italian airline, Ala Littoria, for six months from the stocks of the Standard Oil Company of Brazil. Similarly, Standard continued for several months to supply gasoline to the Nazi German Condor airlines in South America, although, according to the report of the Truman Committee, "an overwhelming majority of the companies asked by the State Department to refrain from doing business with German companies in South America had complied immediately and had taken whatever losses accrued from it."

Apparently the habit of keeping business ties with Nazis was a hard one to break. This was nowhere better shown than in the case of rubber.

America's war effort was very nearly paralyzed by shortages of essential raw materials. The most dangerous shortage of all was that of rubber.

Rubber is, of course, basic to an economy which runs on wheels, powered by gasoline engines. Rubber happens also to be the most important of the few key raw materials which the United States does not possess within its own boundaries. By far the greatest part of our rubber came from the Far East, mainly from Malaya and the Dutch East Indies. As was learned personally by all Americans who depended on automotive transportation, the quick victories by the Japanese after Pearl Harbor cut the United States completely off from its rubber supplies.

Because of a cartel of the natural rubber producers, the United States found itself facing an all-out war without an adequate rubber stock-pile. And because of the operation of the IG-Standard Oil cartel, no effective program for making synthetic rubber was under way. It took desperate last minute steps to break the bottleneck; even so the United States was pinched for rubber throughout the war.

The monopoly of the natural rubber producers in the Far East was one of the tightest and best guarded in the world.

Ironically, it started with a bit of free enterprise, almost to the point of piracy, aimed at the rubber monopoly then held by producers in Brazil.

In the hot belt all around the world's Equator there are plants whose sap can be made into rubber. By one of the freaks of the history of technology, the rubbery qualities of these plants for many centuries were known only to Stone Age people living in the valley of the Amazon River. These Stone Age people learned to collect the sap of the rubber plant and coagulate it quickly over fires. They did not make any great use of the rubber, but rubber balls made by them were brought back to Europe by early explorers.

With the tremendous expansion of textile production at the beginning of the nineteenth century a premium was placed on finding ways of making fabrics waterproof. In the 1820's a Scotsman named MacIntosh showed that rubber could be used for waterproofing. When, in 1839, Goodyear discovered the way to treat rubber with heat and sulphur to make it hold its form in all kinds of weather, the boom in rubber was ready to start.

The first rubber balls had come from the Amazon Valley. The producers of Brazil held fast to their apparently natural monopoly. But when the Brazilians ran their monopoly price up, the incentive to grow rubber in other parts of the hot belt became great. In 1875, an Englishman named Henry Wickham, using all the arts of a smuggler, managed to hide 70,000 seeds of the rubber plant under cover of ferns and orchids for Her Majesty Queen Victoria's Royal Gardens at Kew and slip them past the Brazilian port officials. Wickham's shipment of seeds became the foundation of the great rubber plantations of Ceylon and Malaya. Within a few decades Brazilian production of rubber was eclipsed. In 1910 the Amazon Valley still accounted for more than a third of the world's production and out-produced the Far East by more than three to one. But the turning point was close at hand. The

automobile boom led to tremendous demand for rubber tires. And the increase in production took place on the Far Eastern plantations. By 1920 the Far East had grabbed eighty-nine per cent of the world's output and the Amazon Valley had slipped below ten per cent. By 1930 more than ninety-seven per cent of all rubber in the world was grown in the Far East.

A new monopoly had been established by ruthless competition with the old one. And this new rubber monopoly was better able to defend itself against further invasions. In 1922 the British set up a rubber control program known as the Stevenson Plan. Export of rubber was licensed, production was indirectly controlled, and prices were boosted—largely at the expense of the greatest buyer of rubber, which was, of course, the United States.

There was only one flaw in the Stevenson Plan but that one was fatal. The Dutch producers of Indonesia had not been dealt into the game. They increased their production and destroyed the artificial shortage of rubber. By 1928 the Stevenson Plan had been wrecked. By 1932, the price of rubber had been forced down to the all-time low of less than three cents a pound (as compared with a high of better than three dollars a pound in 1910). It was time to organize a really effective international cartel. In June of 1934 the international Rubber Regulation Committee was formed, with governmental approval, including this time the British and the Dutch as well as all other rubber producers. Production was now under air-tight control; even the movement of a twig of a rubber plant could be stopped.

In the face of the international rubber cartel the U. S. efforts to stock-pile rubber failed. In 1938 rubber was being produced, by design, at less than half of capacity. When the war started, in 1939, production was still below sixty per cent of capacity. Even after Dunkirk, in the last half of 1940, U. S. buyers could not get a relaxation of the production quotas. The British and Dutch producers figured that if

by any chance the full emergency failed to materialize, a big stock-pile of rubber in the United States might enable the Americans to control prices. In the first half of 1941, with American use of rubber approaching a million tons per year, the stock-pile could only be increased by 70,000 tons. And after the Japanese took Singapore in December it was too late to worry any more about stock-piling.

Where the cartel of natural rubber producers left off the Standard Oil-IG cartel picked up. Synthetic rubber was now the only hope of the United States. Without it there would be no air force, no armored divisions, and the highways of America would soon stand completely deserted. But the chief holder of synthetic rubber patents in the U. S. was Standard Oil of New Jersey, and Standard had a debt to pay to IG Farben for having been cut in on the hydrogenation patents back in 1927.

As has been pointed out, in the early 1930's IG was willing to let American companies do limited experimental work with synthetic rubber. But even then the licensing terms were so restricted that the U. S. rubber makers were not willing to go into it. A few years later, IG had the process for making buna rubber far enough along so that they did not need experimental work done in the United States. From that point on, no vital information was sent to IG's cartel partner, Standard Oil, even when Standard requested it. Standard Oil had the patents, of course, but these, without the so-called "know-how," were of little value.

Dr. Oskar Loehr of IG Farben testified to American interrogators that Standard started requesting details in 1938. He was asked:

"When was the first time you turned over the Buna process to the American company?"

To which Dr. Loehr answered: "As far as I can remember, we never did. By process I mean detailed information as to its manufacture."

Standard for its part developed another type of synthetic rubber, butyl, which was superior for some purposes. Full details concerning butyl were sent to the Germans in spite of the fact that the traffic was all one way. As Mr. Frank Howard of Standard explained the difficulty in a letter of April, 1938:

". . . we must be especially careful not to make any move whatever on a purely informal, personal or friendly basis, without the consent of our friends. We know some of the difficulties they have, both from business complication and from a national standpoint in Germany, but we do not know the whole situation—and since under the agreement they have full control over the exploitation of this process the only thing we can do is to continue to press for authority to act, but in the meantime loyally preserve the restrictions they have put on us."

True to their obligations to the Nazis, Standard sent the butyl information. But they did not feel any obligation to the U. S. Navy; in 1939, after the outbreak of war, a representative of the Navy's Bureau of Construction and Repair visited Standard's laboratories and was steered away from anything which might give clues as to the manufacture of butyl.

Standard did not have the full buna rubber information. But what information it did have it only gave to the U. S. rubber makers after much pressure by the government when war was already under way. As for butyl rubber, Standard did not give full rights to manufacture under its patents until March, 1942; according to the report of the Truman Committee, this did not happen until "just prior to public hearings before the committee and subsequent to private hearings by the committee on the subject."

Altogether, it took investigations by two Congressional committees, a special study by Bernard Baruch at the request of President Roosevelt, and the appointment of a "rubber czar"

before the U S. was able to break through the bottle-neck imposed by IG with the help of Standard Oil.

At the conclusion of the interrogation of Dr. Loehr in Frankfurt, one of the American questioners asked:

"So, IG was able to suppress completely the synthetic rubber production in the United States, was able to use an American company, Standard Oil, to protect IG's patents in the case of war between the United States and Germany and . . . undermined the military potential of the United States . . . Is that right?"

Dr. Loehr answered, not without dignity:

"These are the conclusions which seem to disclose that IG impaired the military strength of the United States. Yes."

Naturally enough, when public pressure started to grow, Standard Oil attempted to defend itself by detailing the valuable information it had received from IG. Equally naturally, though we could not know it at the time, when this information reached Germany it caused some commotion in IG Farben. Was it possible that IG, and the Nazi State, had got the worst of a bargain with the American oil company?

The jumping-off point was an article in the *Petroleum Times* for December 25, 1943, written by R. T. Haslam of Standard Oil of New Jersey. Haslam stated that "secrets brought to America from Germany fifteen years ago by American scientists have been turned into mighty weapons against Germany."

The answer was prepared with great thoroughness in a report running to nearly three thousand words, by a committee of IG scientists to A. von Knieriem, chief lawyer for IG Farben and a member of the board. One by one, all of Haslam's claims of benefits received were brutally demolished.

The Farben scientists took four products which Haslam claimed Standard had learned about from IG. For each in turn, they detailed facts proving that the processes were

well known to start with and that in any case no vital information had been transmitted. In connection with iso-octane (used for high test gasoline) they said:

". . . it must be noted that particularly in the case of the production of aviation gasoline on an iso-octane basis, hardly anything was given to the Americans while we gained a lot."

In connection with toluol (coal tar derivative with many uses, including the making of explosives) the report concluded:

"Therefore, when Mr. Haslam, in connection with Toluol, talks of a "miracle" which has fallen to the Americans through the hydrogenation process, his statement is not correct; for Toluol, as can be seen from the above, can be produced without hydrogenation and is in any case not produced by hydrogenation in America."

In the case of oppanol (for top quality lubricants):

"It is evident here too that the Americans were not properly informed about the development here, which is explained by the fact that we left them in ignorance of the fact that, using coal as a base, we ourselves produce the raw materials for Oppanol production."

Finally, in connection with buna rubber, the report repeats the already established fact that no technical information was transmitted beyond the patents themselves.

Still not satisfied that they had thoroughly demonstrated IG's contribution to the Hitler Reich, the IG scientists went on to list some of the gains which they had made through Standard Oil's co-operation. They spoke of lead tetraethyl, (also for aviation gasoline) without which "the present method of warfare would be unthinkable." They mentioned that ". . . the difficult work of development (one need only recall the poisonous property of lead tetraethyl, which caused many deaths in the U.S.A.) was spared us, since we could take up the manufacture of this product together with all the experience that the Americans had gathered over long years."

The report mentions other knowledge of oil products gained from Standard and then concludes with an account of one of the Germans' most spectacular victories. IG was able to build up a gasoline stock-pile for the Nazi government far beyond any possible needs of its own, with the aid of Standard:

"The German government asked IG if it were not possible, on the basis of its friendly relations with Standard Oil, to buy [$20 million worth of aviation gasoline and oil] as IG—[i.e., under its own name] actually however, as trustee of the German government.

"The fact that we actually succeeded . . . was made possible only through the aid of the Standard Oil Co."

It might be argued that the IG men wrote this report to keep the Nazis happy. But the facts in it were confirmed by IG officials when there were no longer Nazis to please but only American investigators.

It is characteristic of American government bureaucracy that no indictment can ever be made bluntly or forthrightly —if the organization indicted is big enough and respectable enough.

The deal between Standard Oil and IG Farben has been covered in several government reports, largely based on excellent investigation by the U. S. Treasury and the Department of Justice. But through the language of the reports emerges a pathetic picture of a lumbering colossus of a company, vaguely mixing into high international affairs, blunderingly giving aid and comfort to fascists, without knowing exactly what it was doing.

Thus the Assistant Attorney General, Wendell Berge, in a book which is otherwise a strong and courageous indictment of cartels, remarks:

"The ambiguous [!] position in which Standard found itself arises from the fact that Standard never considered that

it was making foreign policy, or took into account the political implications of its acts. We neither expect nor require this of our businessmen. After all, they are not supposed to have such responsibility."

Berge's predecessor, Thurman Arnold, wrote that: "The cartels of the democracy were easy dupes."

The report of the Truman Committee, after building up a powerful attack against Standard Oil's part in the rubber shortage, says:

"At the outset it should be stated that there is no question of moral turpitude or of subjective unpatriotic motive on the part of Standard, or of any of its officials. . .

". . . it would be unfair to view the individual actions except as part of a general picture of big business playing the game according to the rules as the Standard construed them. . ."

Small fry spies and saboteurs were not treated so tenderly.

It would appear, at least to this writer, that successful business executives may be as clever as government investigators. If a research man for the Treasury or the Department of Justice can understand that there was a connection between the Standard-IG deal and the sabotaging of the U. S. war effort against Nazi Germany, officials of Standard Oil might also be able to see the connection. Otherwise we would be forced to conclude that great corporations have been built by guess and luck without an ounce of brain in a carload of directors. If the officials of Standard did know what they were doing, we can only conclude that they did not care.

In any case, whether or not Standard Oil was sleep-walking when it all happened, there is no evidence of a decision to do things any differently in the future. At the annual meeting of Standard Oil in June, 1943, a stockholder moved that:

". . . the Standard Oil Co. . . . shall not resume cartel relations with IG Farbenindustrie after the war."

The chairman argued against the proposal on the grounds

that "We do not know what business conditions will be in the post-war world. We do not know how the very intricate and complicated problems of international trade are going to be solved." It might even be, the chairman continued, that the government would want them to get into cartels.

Accordingly the chairman was asked if he would agree if the motion were amended to provide:

"that we will not enter into cartel arrangements after the war with IG Farben unless compelled to do so by the United States Government."

And the chairman still answered:

"No, sir: I will not."

10
Against the New World

Outside of Europe, the biggest concentration of IG Farben agencies and camouflaged subsidiaries was in Latin America. Here, as IG saw it, was the future market, and here, according to the New Order Plan, IG would have to do battle with the United States. Accordingly, IG set up its outposts in each of the ten South American countries and throughout Central America.

Altogether there were at least one hundred and seventeen IG branches in Latin America which can be named. And there were dozens of others whose names are being held in U. S. government files pending legal actions. In general, these were sales outlets. There were only a few manufacturing plants because for the most part IG did not care to breed future rivals. Production was the business of Germans. Let others buy. More specifically, the IG New Order Plan for world conquest stated frankly that there should be as little military production as possible in Latin America because it might some day be used to help the United States. Any chemical production might be useful in war. It is true that in 1938,

IG arranged for construction of a powder plant in Argentina by its subsidiary Koeln-Rottweil—but if that had not been done, the contract would have gone to English or North American firms.

For the entire period between the world wars, IG operated in a conspiratorial manner in Latin America. Most of its outlets were camouflaged along the general lines described in an earlier chapter; that is, they gave the appearance of being independent firms owned by citizens of the country in which they were located. This was good business: it was a way out of paying taxes aimed at foreign concerns. And it was sound economic warfare. IG never forgot the way its foreign assets had been taken over by the Allies during World War I, and another war was always clearly in sight.

IG used its foothold in Latin America to make money. But there were other purposes as well. The whole pattern of the economic war of the 1930's was demonstrated in the Americas.

The IG branches were centers of Nazi propaganda, in the Western hemisphere as well as everywhere else in the world. Under instructions from the Nazi propaganda center, the *Aufklaerung Ausschuss*, IG was active in spreading the Nazi word through the press, schools, and libraries of Latin America. As a business organization its best propaganda weapon and its best club over the heads of publishers was advertising. Accordingly, in February, 1938, the IG drug department aimed the following secret directive at the Latin American press:

"Advertising in journals hostile to Germany . . . shall on all terms be avoided. Commercial and advertising considerations have to be put in the background as compared with the more important political point of view."

Between February, 1938, and March, 1939, the *Aufklaerungs Ausschuss* had managed to farm out to the newspapers of Argentina the impressive total of three hundred and eighty-one articles on the general theme, "Struggle against the

United States in Latin America." A file of these articles was sent to IG with the request for comments, improvements, and further distribution. IG answered, suggesting further newspapers which could use the material, and assigned its chief agent in Argentina, Heinrich Homann, to help in spreading the word.

Propaganda costs money. IG was perfectly willing to support Nazi agents with cash. According to the report of one of the IG Farben men the Latin American agencies of IG were ordered to set up secret bank accounts in the names of a few highly placed individuals. The accounts were known in the IG reports simply as "S" cash accounts and could be used for any sort of confidential payments—bribes, in clearer language—without danger to IG.

Sometimes the request for cash came directly from a branch of the German government. In September, 1939, a wire came to Frankfurt from an IG agency in Mexico, saying:

"In case of war Legation asks firms [in] Mexico to let them have moneys on a loan basis. Amounts shall be refunded by German Government. Please authorize monthly payments P 10,000 on behalf of all IG agencies."

When the wire was found in the Frankfurt files by American investigators, it bore the handwritten note: "Board agreeable—Dr. Overhoff informed."

As mentioned earlier, economic war, as waged by the IG, passed from propaganda and Nazi political agitation to outright espionage. In Latin America, Max Ilgner's special agents, the *Verbindungsmaenner*, acted as spies. Ilgner, under interrogation, named several of his Latin American agents: H. M. Fischer, a dyestuffs representative, who was president of the German Club of Mexico City; von Humboldt, another agent in Mexico; de Margerie of the Bayer drug organization, a Nazi leader in Venezuela; and Kaelble, also a Bayer man, president of the German chamber of commerce in Rio de Janeiro. In Ilgner's own words, these were examples

of IG men who ". . . kept leading posts as members of the 'Auslandsorganization der NSDAP' [Nazi foreign agency]."

When World War II drew closer IG Farben found it necessary to improve its camouflage and tighten up its whole foreign organization. As was stated in a report written to the German Ministry of Economics in 1940.

". . . about 1937, as the danger of a new conflict was appearing more and more, we endeavored to improve the measures of camouflage made by us, especially in the endangered countries . . . Even the delay of the confiscation for some months means for us . . . an extraordinary advantage. According to our experiences hitherto, our measures for camouflage have proved to be very good during the war, and have even surpassed our expectation in numerous cases."

IG took a long view of the struggle for control of Latin American markets. The United States was the main rival, but in thinking ahead to the period after the war it was also worried about its Japanese allies. As an IG report to the Ministry of Economics stated: "In view of the serious struggle with the producers of chemicals of other economic empires, especially America and Japan, for the dividing up of world markets, a struggle which is most certainly to be expected, a mere financial compensation after the war for possible losses will not suffice to cover the damages, which must necessarily occur, if the above-mentioned sales organizations and the industrial strong points would fall, if only temporarily into strange hands. . ."

The Farben official most responsible for Latin American trade, Julius Overhoff, felt that there was a fair chance of prodding the Latin American governments into resisting pressure from the United States, but only if camouflage were improved. As Overhoff wrote to the IG Commercial Committee in September, 1941:

"The Latin-American Governments give in not without hesitation to the pressure brought to bear by the United States.

If we want to help them in their resistance against a closing or a seizure of our strongholds, we can achieve this only by proving that the firms in question are 100% national, if ever their structure should be examined. Any mistake that we will make as to the outer appearance of such firms will be exploited to the fullest extent by propaganda and will eventually furnish a means of tightening the rope around our necks."

By way of rounding out its system of "strong points," IG acquired control of several additional manufacturing establishments such as the Fluminense in Brazil, Inquico in Colombia, and a concern in Chile. A main purpose in taking over these firms was to head off North American competition. As an IG report said: "We may point out that some of these enterprises, as, for example, the 'Fluminense' in Brazil, were acquired after strong competition with the important American chemical industry (Du Pont de Nemours). Apparently the North American industry has also recognized the importance of these strong points."

To improve its camouflage IG took two main steps. Formerly, there had been direct contracts between IG and its front-men in the foreign countries. These contracts were replaced with more hidden agreements which could not be revealed by inspection. Secondly, front-men who had outlived their usefulness were replaced. One of the main camoufleurs for IG was Dietrich A. Schmitz, brother of the IG president Hermann Schmitz. Dietrich Schmitz was an American citizen. He was also IG's main trustee for shares of camouflaged companies throughout the Americas. But in spite of his American citizenship his relationship to Hermann Schmitz was a little too close to pass. It might suggest that some connection existed between Brothers Dietrich and Hermann. Accordingly, Dietrich Schmitz's shares were transferred to other hands.

The major problem now was to continue shipping supplies to the Latin American agencies. No matter how effective the camouflage had been, if the IG could not get its goods through

the blockade set up by the British, IG outlets would either starve or—worst of all—use the goods of British and American competitors.

Systematically, IG Farben set out to break the blockade. It succeeded so well that its *sales in Latin America actually increased from 1938 through 1941!* In 1938 IG sold 29.3 million marks worth of dyes and chemicals to Latin America. For 1941, after there had been two years in which to perfect the blockade, the total sales had risen to nearly forty million marks.

IG used every known method of smuggling and invented a few new methods. In part, German government blockade runners were used. Before Italy entered the war, dyestuffs were shipped from Italy to South America by parcel post. Some IG goods were shipped in neutral vessels from Dutch and Italian ports. To the very end of the war IG products went out of Spain under cover of Spanish labels.

But IG's best resource was its friends in the United States. According to the New Order Plan, the United States was the main rival and the Latin American market was the center of the rivalry. It was doubly satisfactory, then, to maintain German sales outposts in Latin America, at the expense of the United States, through the aid of allies in North America.

Goods were shipped for IG's Latin American customers by American firms which pretended to be independent and therefore not subject to blockade—like General Aniline and Film. Here is a description of the system in the words of an IG memorandum:

"The most important source of delivery in the very near future will undoubtedly be the United States of America. As the matter stands, Fezandie & Sperrle [U. S. exporters] may appear as suitable suppliers which receive the goods from GAW (General Aniline Works) and GDC (General Dyestuffs Corp.) and also in accord with Messrs. Halbach and Mill shall buy from the dealers and remaining producers. By Fezandie

& Sperrle the whole shipments are sent to Latin America under neutral denomination, i.e., also not under IG registered trade-marks, such as Indanthren. . . etc. The agencies sell all the foreign goods under their own denomination. By this way an endangering of our trade-marks is not to be feared."

It will be noted that the memorandum mentions Mr. Halbach of the General Dyestuffs Corporation which was part of General Aniline and Film and previously part of American IG. In another IG report a few months later, Mr. Halbach is praised for his good services:

". . . I may especially express here the friendly attitude and fair cooperation noticeable with Mr. Halbach and Mr. Neisser (both of General Dyestuffs Corporation) who try to help as much as they can. . ."

This praise deserves mention. A few years later, when General Aniline and Film was taken over by the U. S. Alien Property Custodian and placed under new management, the same Mr. Halbach was retained as a consultant: he was deemed indispensable. The compliments to Mr. Halbach appear only fair. It is no mean feat to please both sides in a deadly fight. If the parallel is not too painful, it may also be noted that one of the main arguments against denazification in the U. S. Zone of Occupation in Germany was that the key Nazis were indispensable. Without them, things would collapse.

A central figure in the maintaining of IG's Latin American trade outlets was a citizen of Argentina, Alfredo Moll. Moll had been a co-manager of one of the principal IG agencies in South America, Anilinas Alemanas of Buenos Aires. In 1940 he was called to Europe, and in conferences in Italy and Switzerland he was briefed on the work he was to do as an undercover purchasing agent in New York.

For several months there was no specific information from Moll. The IG men in Frankfurt and Berlin began to worry. Through an IG man who was an American citizen, Richard

Metz, they asked that Moll turn in a report. The request stated:

". . . It would be very suitable if this report was sent off from Mexico or even made out in Mexico for reforwarding in neutral form via Peru or Brazil. It would be advisable for Mr. Moll to make use of a short leave to travel by auto to Mexico. . ."

Moll took his holiday in Mexico, as requested, and in December, 1940, sent from there two reports. IG headquarters should have been reassured. All was well.

"I believe I can assure you," Moll wrote, "that it was possible by means of patient and persistent work to arrive at a normal and lasting relationship between New York and all important centers in Latin America. . .

". . . Chile and Colombia received practically their whole sales volume, but Mexico, Brazil and Argentina lost a part of their sales. . ."

In his second report Moll took occasion to praise another American firm for its helpfulness. ". . . We have observed with great satisfaction that the sales of the Advance [Advance Solvents & Chemical Corporation of New York] to our Latin-American houses constantly increase, which proves that our connections are more secure."

After the middle of 1941 Moll's difficulties increased. There was now a Proclaimed List of firms with which trade was not to be carried on. Any firm with a known connection with IG was, of course, on the list. Still Moll carried on. As stated in the report on IG Farben submitted by Colonel Bernard Bernstein to the Senate Kilgore Committee:

"His method of operation [now] was to place orders in the United States for firms not on the Proclaimed List, including with those orders goods which were upon arrival in Buenos Aires to be transferred to Anilinas Alemanas."

Moll had formally severed his connections with his old firm Anilinas Alemanas. But his ex-partners had no worries

about his loyalty. His former co-partner, Flinsch, wrote to IG in October, 1941, that ". . . After Mr. Moll had left my firm in last June, in pursuance of this exchange of cables, and accordingly severed all his connections with it, insofar as was necessary with regard to outside appearances, the old close and friendly contact with Moll . . . continued. . .

". . . my firm was always informed in advance of all activities and plans of Moll with respect to the establishment of business relations with the United States . . . everything was discussed and executed by joint determination."

Even after the United States entered the war and IG lost its American sources, some IG goods continued to reach Latin America by way of Spain. The traffic was not entirely cut off until the Anglo-American armies broke out of the Normandy beachhead in the Summer of 1944 and cut the line to Spain. Julius Overhoff of the IG found an agent named Uebele who was able to handle the trade through Spain. Dyes were shipped through France to Cerbere on the Spanish border. There Uebele took over, hid the goods under Spanish labels, and shipped them under a British navicert to Buenos Aires.

In the first years of the war the blockade hurt IG Farben hardly at all. IG's trade with its South American outposts was only completely stopped by the defeat of the German armies in Europe. In the same way, there is no guarantee that those outposts will be broken up until IG Farben is smashed at its center, in Germany. A year after the end of the war it was still not certain that this would happen.

In Latin America IG was fighting against the United States for market control. But the IG offensive did not stop there. The battle was carried into the United States itself. The story of rubber shortage, and the part played in it by the cartel relations between IG and Standard Oil of New Jersey, is only one outstanding example of the series of shortages and bottle-necks which were produced in the United States. Even

IG's use of espionage and propaganda were relatively minor compared with the subtle crippling of production achieved through cartel manipulation.

It is fortunately true that the bottle-necks were broken. Before the end of World War II the United States was producing a staggering weight of munitions. American war production approached that for the rest of the world combined. But this did not just happen by a sort of muddling through.

American arms production began in earnest after the fall of France, in June, 1940. For nearly two years after that, well into 1942, paralyzing shortages occurred. And it was during this period that America's two principal allies, England and Russia, were taking their worst blows. There were not yet any great numbers of American troops in action, but the need for lend-lease materiel to the Allies was enormous. In the face of the need there were shortages of aluminum, magnesium, optical goods, tungsten carbide, medical supplies, and many other items.

A large share of the credit for breaking through the supply jam goes to the Antitrust Division of the Department of Justice. It was this division which dug out the web of cartels which was holding back American production. Antitrust suits were brought and basic facts were laid before Congressional investigating committees. The restraining grip of cartels was pried loose—in large part by the quite simple procedure of laying facts before the public.

Masses of evidence about cartel operations brought out by the Department of Justice are now in the records of the U. S. Senate investigating committees, such as the Bone Committee, the Truman Committee, and the Kilgore Committee. The story has been told in books by Joseph Borkin and Charles Welsh *(Germany's Master Plan)*, Wendell Berge, Corwin Edwards, and others. Here are some of the facts.

Aluminum is one of the newer metals which are making the steel age a thing of the past. Aluminum has many ad-

vantages over most of the iron and steel alloys. It is lighter, corrodes less quickly, and is an excellent conductor of electricity. Its ore is found all over the world. Aluminum is vital for war and has a multitude of uses in peace time. There is no visible limit on how much aluminum could have been used in the United States, except that one huge monopoly has stood in the way of free production. As is well known, American production of aluminum before World War II was entirely controlled by the Aluminum Company of America—Alcoa.

The United States can produce about four times as much steel as Germany. American industrial capacity generally is far greater than Germany's. Yet the beginning of 1942 saw a strange sight: Germany, not the United States, had become the greatest producer of the war-essential metal, aluminum.

This was not one of the instances where the Germans held back information from the United States—as in the case of the buna rubber methods, or where the Germans imposed their will on American businessmen—as for example in IG sales to South America. No one had to tell Alcoa what to do. For decades it had been operating on a policy of low output and high prices. It stoutly held to that policy during all the time that Germany was preparing for war and increasing its aluminum production under forced draft.

A world cartel in aluminum was organized between 1928 and 1931. Alcoa did not join the cartel. But Alcoa organized a junior partner in Canada, known as Alted, and Alted did join the cartel. By what might have been a strange chançe but probably was not, the policies of Alcoa seemed to gear in neatly with those of the cartel. As Borkin and Welsh put it in their book *Germany's Master Plan:* "The cartel . . . could never have functioned unless by design or accident Alcoa did not disturb their markets."

All the members of the cartel were committed to a policy of small output—with one exception, the Germans. Germany

was represented in the cartel by the Vereinigte Aluminum Werke and, as usual, an IG subsidiary, Aluminum Werke. The German firms took full advantage of the restrictive policies of the others. They bluntly told their partners, in 1934, that they were going to increase their production beyond the quota assigned to them. And they were finally given permission to do so—on their promise to use the extra production at home and not disturb the world market.

By 1937 the Germans had drawn nearly even with the United States in aluminum production. In 1938 they pulled ahead, 175,000 tons to 130,000, with the other countries altogether out of the running. By 1941 Germany probably was producing more aluminum than all the United Nations combined. The whole American aircraft program was jeopardized by lack of aluminum. The cartel had done its work well in restricting production in all countries except Germany.

Magnesium was another metal which the Germans realized was a key to war preparations. Magnesium is even lighter than aluminum. It can be used in flares and fire bombs and it can also serve as a substitute for aluminum when properly alloyed. In fact it is such a good substitute for aluminum that Alcoa recognized it as a serious threat to its aluminum monopoly. What is the good of controlling the total supply of one metal if another metal can be used instead?

The main German producer of magnesium was IG Farben. With its wonderful skill in handling cartels, IG so played upon Alcoa's fear of magnesium competition in the United States that for years the Germans were literally able to dictate how much magnesium was to be made in America and how much was to be shipped to Great Britain.

To start with, in the 1920's, there were two American magnesium producers, the Dow Chemical Company and a subsidiary of Alcoa, the American Magnesium Company, Alcoa competed because it had to in order to achieve its objective: The production of as little magnesium as possible,

and in 1927 Alcoa agreed to buy all of its magnesium from Dow.

IG came into the picture in 1931 when it signed an agreement, known as "Alig," with Alcoa. Alcoa and IG formed a joint corporation for the holding of patents, the Magnesium Development Company. These patents were important. According to the usual IG system they could be used as a threat to bring outsiders into line with the cartel.

German production of magnesium was being built up as rapidly as possible. As part of the same Nazi plan of war, there was to be as little production in America as possible. Accordingly, IG inserted a clause in the Alig agreement to the effect that American production should not exceed four thousand tons a year.

The next step was to force the Dow Company into line with the Alig agreement. Alcoa applied the pressure. With the patent holding company, Magnesium Development Company, as a base of operations, Alcoa threatened the Dow Company with endless litigation over patent rights. Dow had to give in.

Now IG had reached its objective. American production of magnesium would be held below four thousand tons per year. Dow Company had to agree to limit sharply its sales in Europe; a mere one hundred and fifty tons per year could be sold to the British Maxium Company. The results were obvious: as late as 1940, the United States only produced about 5,700 tons of magnesium while Germany was producing 19,000 tons. It was another gift from IG to Hitler, and another tie-up in American war production which had to be untangled in desperate haste.

The first American troops to fight in the Pacific Islands suffered terribly from malaria without adequate drugs to treat it. This was another victory for IG Farben.

For many years quinine had been the standard drug used to give relief from malaria. Quinine came from Java. Production was entirely controlled by a Dutch monopoly so

tightly organized that even the Germans admired it. IG's New Order Plan set forth ways of taking over the Dutch monopoly without disturbing its operations. Meanwhile, IG set about defeating the monopoly in its own fashion. It found a synthetic drug, atabrine, which also relieved malarial attacks.

When the Japanese captured Java, they took with it virtually all of the capacity for quinine production in the world. The cinchona tree, from whose bark quinine is made, also grows in South America. In fact, the Dutch took the cinchona from South America to Java. But the quinine industry of South America was only meagerly developed.

Cut off from quinine, American soldiers had to fall back on atabrine. And here they ran up against another IG Farben road-block. IG had licensed only one American company to make atabrine. This was the Winthrop Chemical Company, linked with IG in other ways, too. Winthrop Chemical would not expand production. In the words of the Assistant Attorney General, Wendell Berge, "It required the concerted effort of manufacturers and government to institute expanded production in order to make up for the deficiencies of quinine."

By the beginning of 1941 England was enduring the blitz and American public opinion was running strongly in favor of giving aid to the British. But when the British Purchasing Mission tried to buy tetrazene-primed ammunition in the United States, the sale was prevented—by a cartel agreement between the Remington Arms Company (subsidiary of Du Pont) and a subsidiary of IG Farben, Rheinische Westfaelische Sprengstoff.

A Remington Arms Company patent attorney wrote:

"The further sale of Tetrazene Primed Ammunition to the British Purchasing Commission or to the Government of the Union of South Africa or to the Government of Canada is most undesirable by reason of our Tetrazene contract with R. W. S. [the IG subsidiary].

". . . We understand that the Process Division have recommended the use of Tetrazene priming in certain ammunition to be sold to the British Purchasing Commission. It appears obvious that this should not be done." And it was not done.

Of course IG Farben was not the only German cartel builder. There were other German concerns which carried on the economic attack against the United States.

For example, the Krupps made an agreement with the American General Electric Company concerning tungsten carbide. Tungsten carbide is second only to diamonds in hardness. It is essential for machine tools which in turn are essential for all other machine fabrication. The Krupp-G.E. agreement followed the now familiar pattern. In Germany tungsten carbide was produced in quantity and sold for prices ranging from $37.00 to $90.00 per pound. In the United States tungsten carbide was made in small quantities and sold at prices ranging from about two hundred dollars to four hundred dollars a pound. By 1938 there was perhaps twenty times as much tungsten carbide in use in Germany as in the United States. The Germans had an oversupply of machine tools which helped them greatly in repairing bomb damage to their factories, while in the United States shortage of machine tools was one of the critical bottle-necks. The bottleneck was finally broken by antitrust action, but as one American manufacturer said: "Now when the emergency has come, industry has not learned how to use tungsten carbide and has not the machines, the skilled men, or the technique which it would have had if the material had been available at the same low prices at which it was available to German industries."

And then there was the case of optical instruments. In the United States, optical instruments—which include rangefinders, periscopes, gun and bombsights, torpedo directors, as well as telescopes and binoculars—are made by the Bausch and Lomb Company. The main German producer was Carl

Zeiss of Jena. Zeiss and Bausch and Lomb reached a cartel agreement as far back as 1921. At that time, according to the U. S. Department of Justice, Bausch and Lomb helped the German firm to evade the terms of the Versailles Treaty and re-establish itself in production of military optical instruments. As usual with cartels, U. S. production of optical instruments was restricted to the point where another major bottle-neck was created by the time World War II began. The cartel also called for exchange of information. Accordingly, U. S. War and Navy Department secrets were being sent to Germany as late as 1939. The German partners, however, had started resorting to vague general descriptions of methods in 1933 after Hitler became Chancellor. By an interesting chance, Zeiss became more interested than ever in U. S. military equipment—after Hitler took over. The following is from a letter to Bausch and Lomb written in April, 1933:

"Your last monthly report has given cause to the consideration that we surely would be better in a position to assist you if you would report to us what kinds of instruments are under trial and in use by your military service. There must be a great many questions regarding instruments for airplanes, tanks, and ships which demand special optical instruments.

"We would ask that you intensively find out at the proper places and that you communicate to us the different problems. . ."

Bausch and Lomb continued to send reports. They merely asked, since there were now secrecy clauses in all their U. S. government contracts, that special precautions be taken. In a letter to Germany written in December, 1933, it was pointed out that:

". . . the regulations are so stringent that particular care must be exercised to keep these reports in strictest confidence and they should be kept in a separate file under lock and key."

Aluminum and atabrine, machine tools and periscopes: for all of them the pattern was the same. Cartels produced critical shortages in the United States when rearmament began. IG Farben and the other German firms had done their work well.

11
Ending? — U.S.A.

From its birth IG Farben had been at war with the rest of the world, with the United States as a main target. After Pearl Harbor the United States hit back.

To get at the Wehrmacht it was necessary to raise huge armies, train and equip them, and move them across an ocean. It was necessary to force a landing on the Normandy coast in perhaps the most intricately-fashioned military operation of all time. Before a single American could set foot in an IG plant in Germany more than 115,000 American soldiers had to die in battles all the way across France, through the Siegfried Line, and into Germany.

There were also IG assets in the United States, and these did not seem to present as difficult a problem to seize and take over. At least there were no land mines or pillboxes or bunkers on the road to the various works of General Aniline and Film. These were subject to immediate seizure, as a war measure, by the U. S. Alien Property Custodian. Whatever might happen to the rest of the IG Farben empire, it looked like a sure end to IG in the United States. It looked that way.

Nearly five years after Pearl Harbor it is still not certain that it will work out that way.

Americans faced many new problems in World War II, but the handling of enemy assets in this country was not one of them. Here there was ample precedent from World War I. In particular, there was full knowledge of what had been done with IG's American holdings—and how IG had gotten them back. This is a story worth reviewing for the light it throws on current problems.

The backbone of the German economic attack had been the fruits of its advanced industrial technique: patents. The Alien Property Custodian moved straight to the center of the enemy's strength by seizing the patents, more than twelve thousand of them. Of these about five thousand were in the field of chemistry. Some of the patents were retained by the Army and Navy; the rest were sold to American business.

Before World War I there had been virtually no American production of dyes. Now, on the basis of the German patents, an American dyestuff industry was created. A special corporation, the Chemical Foundation, was organized for this purpose.

The Chemical Foundation acquired the German patents from the APC (Alien Property Custodian) and parceled them out to American firms. As the name implies, the Foundation's primary interest was in the field of chemistry. The actual founder and the guiding spirit of the Chemical Foundation was Francis Garvan. Garvan had been a New York attorney, active in local politics. He was first the assistant to the Alien Property Custodian and then became the Custodian himself. Garvan was an eloquent man and a hard fighter. For the rest of his life he pleaded for a strong American chemical industry and opposed the IG. As the years passed he found more and more to contend against as IG made its come-back, not only in Germany but in America as well.

In addition to the seizure of the German chemical patents the IG properties in the United States were also taken over. At that time the IG was still not a single corporation, and its main outlet abroad was the famous Bayer organization of Leverkusen. In 1919 the APC sold Bayer's American agency at auction. The buyer was the Sterling Products Company of West Virginia. It should be noted that a condition of the sale was that there be no return to German influence.

The Bayer agency in the United States had handled both pharmaceuticals and dyes. Sterling was interested only in the drug business. It sold the dye interest to the Grasselli Chemical Company. And the IG, through Bayer, immediately set about recapturing a share in both.

Just a year after the APC's auction, in 1920, Sterling had already reached its first cartel agreement with the IG. The fact was that the Germans were still fearsome competitors in the field of chemistry. Even though five thousand chemical patents had been seized, there were new ones coming. Behind the bare, and sometimes misleading, wording of the patents were the actual industrial methods. Most important of all, there was still the IG organization in South America. In 1946 as well an IG organization remained in Latin America.

By the terms of the 1920 agreement, Sterling, in effect, turned over all of Latin America to Bayer for the sale of aspirin. In return, Bayer gave Sterling a twenty-five per cent share of the profits of the trade. This was just one in a long series of incidents demonstrating IG's willingness to take a short-run loss in profits for the sake of establishing a controlling position.

In 1923 the Sterling-Bayer (IG) agreement was broadened to cover almost all drugs. The main thing Sterling got out of the arrangement was a promise by the IG to stay out of the drug business in the United States. But this promise became meaningless when the IG was simultaneously given a fifty per cent share in the profits of Sterling's subsidiary, the

Winthrop Chemical Company. In 1926 IG moved still further back into American territory when it acquired fifty per cent of the ownership of Winthrop.

Sterling itself remained clear of German ownership, but it proved to be a good friend of IG Farben. In December, 1939, Sterling was one of the companies which agreed to help IG beat the British blockade. Sterling shipped drugs to Latin America which were sold there by IG agents under IG labels.

In the case of the Grasselli Chemical Company, which had bought out the Bayer dye interests, IG was able to score an even more complete success. In 1924 Bayer and Grasselli formed a joint company to handle dyes in the United States, the Grasselli Dyestuffs Company. Bayer had a fifty per cent share in the new company, but to make sure there would be no competition in Latin America, Grasselli Dyestuffs was limited to sales in the United States and Canada.

There followed a series of agreements, each adding a little more to IG control of its old American dye business. By terms of a deal made in July, 1925, Grasselli Chemical was left with only a thirty-five per cent share in Grasselli Dyestuffs; the rest went to Bayer and its partners in the IG. As compensation, Grasselli Chemical received a share of IG profits—still another example of a temporary sacrifice of hard cash by the IG in order to win a strong point abroad.

By the latter part of 1928 Grasselli had disappeared altogether. Grasselli Chemical was bought by Du Pont and IG was left in complete control of Grasselli Dyestuffs. Throughout the whole process of taking back its old interests, the IG had been helped greatly by the fact that much of the original personnel had been left on the job when the APC took over. For example, the manager of the Grasselli dye department was a man named Ralph Hutz. Hutz was an old Bayer man who had been interned during World War I.

Now IG was ready for a full dress re-entry onto the Ameri-

can scene. In 1929 the American IG Company was formed. It included the General Aniline Works (which was a new name for the old Grasselli Dyestuffs Company); Agfa-Ansco, makers of photographic materials; a half share of the Winthrop Chemical Company; and a half share also in the Magnesium Development Company, which turned out to be IG's contribution to low magnesium output in the United States.

IG Farben of Germany had impressive American backing in launching its new organization in the United States. Members of the board of directors included such leaders of American business as Walter Teagle, president of Standard Oil of New Jersey, Edsel Ford, and Paul Warburg. Standard, of course, was already deeply involved in cartel relations with the IG. Ford was returning a favor: IG had been a leading investor in the Ford Company of Germany.

At the start, there was no hiding the fact that American IG was simply a branch of IG Farben. But the men of IG never forgot the war which was coming and the need, therefore, for camouflage. The controlling shares of American IG were not held by IG Farben itself, but by the supposedly Swiss company, IG Chemie.

With the beginning of World War II, in 1939, American IG changed its name to General Aniline and Film. A year later Hermann Schmitz of IG Farben went through the full legal ritual of declaring IG Chemie free of German control. General Aniline and Film, therefore, could also try to claim that it might be Swiss but certainly not German. Yet General Aniline and Film was the lineal descendant of the old Bayer agencies in the United States from the period before World War I. And in World War II, through the end of 1941, it fought the good fight for IG Farben by breaking the British blockade and preserving IG's Latin American markets.

IG Farben was thoroughly re-established in the United States. Still, the work of the World War I Alien Property

Custodian was not entirely in vain. As a result of the APC's seizure of the German patents an American dyestuffs industry was established, independent of the IG. Several major U. S. corporations—like Du Pont, Allied Chemical and Dye, and American Cyanamide—became important dye producers.

It might be supposed that with these companies, at least, there could be no IG connections. But this naive notion discounts the strength of the cartel germ. From 1939 to 1942 Allied Chemical and Dye was three times indicted by the Department of Justice under the Sherman Antitrust Act for its share in the international dye and nitrate cartels, dominated by IG Farben. Du Pont was the American corporation which came closest to IG Farben in scope and power in the field of chemicals. Du Pont had been particularly active in the movement to protect the "infant American chemical industry" after World War I. It had underwritten $125,000 of the capital of the Chemical Foundation. And yet in 1919 Du Pont had already sent representatives to Switzerland to shop for an agreement with the IG men concerning world-wide exploitation of the Haber-Bosch ammoniac process.

When these facts were touched on at a hearing of the U. S. Senate Committee investigating the munitions industry in 1934, a committee investigator accused a Du Pont witness: ". . . At the moment when you were showing the Country here that it was very important to take over the control of the chemical monopoly, to take it away from Germany and get a well-developed chemical industry in this country, you were dealing with the Germans over there. . ."

As a matter of fact, the Germans were enraged over the loss of their patents; their anger increased when Congress put a high tariff on dyestuffs. They figured that Du Pont had had a part in both operations. Even so, the Du Pont agents in Europe were able to smooth over the difficulties. One of them wrote home that: "We parted as good friends . . . and they are now convinced that . . . we have played fair vis a vis them."

IG and Du Pont never did reach a complete agreement of the kind each of them arrived at with the British ICI (Imperial Chemical Industries). But Du Pont was in cartels with subsidiaries of IG, as, for example, in the munitions field with Dynamit-Nobel and Koeln-Rottweil. And the activities of Du Pont and IG were geared together by the fact that both worked closely with ICI: the two sets of master agreements could not be in conflict.

Altogether, the movement toward international cartels proved too strong for the APC's effort to drive German chemistry out of America after World War I. When the second war started, there was in any case a rich background of mistakes to avoid.

At the time of World War II there were at least seven companies which could be called assets of IG Farben in the United States. Several of these—like the Magnesium Development Corporation, the American Magnesium Corporation, and Jasco, Inc.—represented cartel links between IG and such American corporations as Alcoa and Standard Oil. These cartel links were broken, at least temporarily, by the war.

That the cartels between IG and big U. S. firms may be resumed again is clear. The question here is a general one. The fate of a particular patent holding company, like Magnesium Development Corporation or Jasco, is secondary compared with the larger policy questions: 1) will there be another IG Farben with which cartels can be formed? and 2) will there be a clear-cut and official American policy toward cartel building?

After all that has been learned about the two world wars it would be hard to find anyone who would publicly declare himself in favor of preserving IG Farben or rebuilding the old cartel structure. Yet neither of the two questions stated above had been answered more than a year after the end of the war. As will be shown in the next chapter the first year

of Allied occupation of Germany did not see the destruction of IG Farben. There remains a grave danger that IG will emerge again. Nor has there been a specific statement of a U. S. trade policy to take the place of private cartel building.

There has been a great deal of talk about "freedom" as a general thing and about freedom of trade among nations. To leave the discussion at this level of noble generality is to imply that we have just emerged from the Crimean War rather than World War II. Responsible leaders of the American government have stated that we are against repressive cartel practices. And that is all. The only law which comes near applying to the situation is the Sherman Act, written half a century ago to control *domestic* trusts. There is absolutely no guarantee that the people as a whole will have any control over the key decisions in international economic relations which make for war or peace. In the absence of such control, the decisions will again be made by small private groups of businessmen, organized in cartels, whose only responsibility is to show profits to their boards of directors.

From the record there is every reason to believe that the big corporations which were in cartels before the war are ready and willing to get back into them. The directors of Standard Oil of New Jersey in 1943 refused to consider a proposal to stay out of cartels with IG Farben. Other companies have demonstrated the same attitude. As Corwin Edwards declared before the Kilgore Committee: "The Du Pont Co. apparently has an understanding that many, if not all, of its cartel agreements will be resumed after the war. . . The termination of the exchange of technical information between Du Pont and IG Farben in April, 1941, was intended to endure 'until the present emergency has passed' with 'all other obligations in the contracts to remain as at present.' "

However, there was one big piece of IG property which could be disposed of in the United States, as a purely war measure, without regard to general cartel policy. This was

General Aniline and Film, with its related company General Dyestuffs. The sole defense of G.A. & F. was camouflage of the same kind which IG used so successfully all over the world.

In February, 1942, the U. S. Treasury took over most of the shares of G.A. & F. and removed the directors of the company. Two months later, on April 24, control was passed to the Alien Property Custodian. More than four years later the APC still retained control—and the future of G.A. & F. had not been settled.

The Treasury, when it first removed the old officers of General Aniline and Film, appointed Robert E. McConnell as president and J. S. Bates, W. F. Zimmerli, and A. E. Marshall as vice-presidents. None of the Treasury slate of officers was retained by the Alien Property Custodian. Let it be noted in passing that in policy wrangles in Washington the Treasury Department argued throughout the war for strong measures against Nazi Germany and for break-up of German assets in the United States.

The question of future ownership of General Aniline and Film has never been settled. But operating control has passed to a group of men who are tied in with a constellation of corporate interests which is rising rapidly in American business under the leadership of an international financier, Victor Emanuel. Emanuel himself sits on the board of directors of G.A. & F. There is a liberal sprinkling of his associates among the other directors and officers.

It is not at all remarkable that Victor Emanuel has gained influence in the handling of IG's American interests. It is at least suggestive that the first Alien Property Custodian was Leo Crowley, head of Standard Gas and Electric. Standard Gas and Electric is controlled by the Emanuel interests. Crowley's successor, and the present Alien Property Custodian, is James Markham. Markham was also a Standard Gas and Electric director. Another man who evidently has

had much to say about General Aniline and Film is George E. Allen, a some-time adviser to the President of the United States and the former head of the Reconstruction Finance Corporation. Allen was given directorships in several other corporations in the Emanuel group such as Consolidated-Vultee, Aviation Corporation, and Republic Steel.

The main danger in the handling of IG's American assets is, of course, a return to German influence and connections. It is worth noting that Victor Emanuel spent much time in England, between 1927 and 1934. In London he was associated with the Schroder banking interests; it was in combination with the Schroders that Emanuel moved in on Standard Gas and Electric. As is well known, the Schroders of London are related to the Schroders of Germany. Baron Bruno Schroder is credited with having introduced Hitler to the principal industrialists of the Ruhr. Baron Kurt Schroder held a high rank in the SS and was known as "the SS banker." The London banking house, J. Henry Schroder and Company, was described by *Time* magazine in July, 1939, as an "economic booster of the Rome-Berlin Axis."

It will be remembered that after World War I the Alien Property Custodian seized the Bayer properties, only to see them revert to German control in an astonishingly short time. One of the main flaws in the work of the APC was the failure to remove the old personnel from key positions. In 1942 the Treasury started with a clean slate by forcing out all of the officers and directors of General Aniline and Film. By 1945 the Alien Property Custodian had allowed several of the former officials to return. Among them were F. A. Gibbons, R. H. Baxter, and C. E. King.

The head of General Dyestuffs before the war was E. K. Halbach. Halbach was one of the men singled out for praise in IG Farben reports for his share in preserving IG's Latin American business. Concerning Halbach the Alien Property Custodian's annual report for 1945 states:

"Mr. E. K. Halbach, who was President and General Manager of the Corporation before vesting, is employed by the present management as a full-time consultant. Upon settlement of the litigation involving shares formerly held by Mr. Halbach, he submitted his resignation for consideration by the Board of Directors [who had been appointed by the APC]. The Board has not accepted his resignation since, according to a statement by the President, the members believe that 'his separation from the company as a consultant at this time would adversely affect the war effort.' "

General Aniline and Film remains a handsome prize. Considered purely as a manufacturing organization, its value increased during the war. Under APC direction it was turned to war production and received several Army-Navy "E" awards. Its research activities were greatly expanded. In 1941 a mere $13,000 was spent on basic research. During 1944, laboratory work cost $1,582,000. In June, 1945, the company held nearly four thousand U. S. patents. Until something is done with General Aniline and Film, these remain IG patents, held in trust by the APC.

Naturally, there would be no difficulty in finding buyers for G. A. & F. In fact, there have been several bids already. By the mere fact of present control the Emanuel group would seem to have an inside track, but American chemical interests have also entered the competition. The stumbling-block in the way of a sale has been IG Chemie of Switzerland.

IG Chemie has been called Hermann Schmitz's masterpiece of camouflage. He created it for the specific purpose of holding IG Farben's foreign properties safe from seizure when the war came. The plan unfolded smoothly after the war started in 1939. American IG changed its name to General Aniline and Film, and IG Chemie went through all the motions of severing its connections with IG Farben. IG Chemie even improved on the script by giving itself a new name in January, 1945.

Whatever the names may be, IG Chemie still claims ownership of the controlling shares of General Aniline and Film. And the American Alien Property Custodian has held up the sale of G. A. & F. and the IG patents for fear that suit might be brought by IG Chemie. The theory is that IG Chemie could claim that it was a Swiss company, and therefore neutral, and that its property was not subject to seizure and sale.

Meanwhile, Hermann Schmitz, the president of IG Farben who planned the whole concealment device, has been resting in an American army prison in Germany known under the code name of "Dustbin." It is possible that the boredom of prison life has worked on Schmitz's memory. Early in August, 1946, he made a public offer to travel to Switzerland, to see his friends in IG Chemie there, and to arrange through them raising of funds to pay for food relief shipments into Germany. Evidently Schmitz has remembered that he really did have connections with IG Chemie after all.

In spite of Hermann Schmitz's lapse into recalling that he could tell IG Chemie what to do, the sale of General Aniline and Film remains blocked. According to one proposal, the Alien Property Custodian will have to ask Congress to pass a bill permitting him to sell property which he has seized even though it is claimed by neutral concerns.

Still another attack on G. A. & F. was an antitrust action undertaken by the Department of Justice. Shortly before the war, G. A. & F. was indicted on three counts as a monopoly. The case was allowed to lapse during the war. Finally in March, 1946, G. A. & F. decided not to contest the suit and was fined $15,000. As a footnote it may be added that the net worth of G. A. & F. increased from about forty million dollars in 1942 to nearly fifty-eight million dollars in 1945. A $15,000 fine was about as troublesome to the company as a traffic ticket to a private citizen.

General Dyestuffs was also indicted for violation of the Antitrust Act. Among the co-defendants were Du Pont, Allied

Chemical and Dye, and the Swiss Dye Cartel. In all, there were fourteen defendants; their fines, when the case was settled in April, 1946, totaled $110,000. Considering that it took at least four years to conclude the cases, the fines may be considered very modest licensing fees for the privilege of engaging in cartels.

While the war was going on the Department of Justice was able to force breaks in cartels which were crippling the American war effort. It could do this because public attention was alert to enemy action. The greatest amount of pressure was generated by laying facts before Congressional investigating committees, rather than by the mere act of taking antitrust cases to court. With the war over, the antitrust men in the Department of Justice who want vigorous action must fall back on the courts again. The results can only be considered trivial.

When the United States went to war after Pearl Harbor it looked as though IG Farben would lose its American foothold forever. But it turned out that Hermann Schmitz had woven his invisible net of concealment exceedingly well. The main asset of IG in the United States, General Aniline and Film, still remains a possible threat to future peace. The pattern of World War I repeats itself with terrifying precision.

The heart of IG remains in Germany. If IG Farben is really destroyed in its homeland, it will not matter if IG Chemie and General Aniline and Film call themselves Swiss or Dutch or Mongolian. The final show-down is in the occupation of Germany. And there, so far, IG Farben is fighting a successful battle for survival.

12
Ending?—Germany

In the Spring of 1945 the Allied war against fascism reached its highwater mark.

It was the spring of liberation for the countries of Europe. Even in the ruined cities and burned villages the air was sweeter: life could start again.

It was the spring in which the American, British, and Russian armies broke into the inner fortress of Nazi Germany and cut the Wehrmacht to pieces. Late in April came a day for which men had waited all the years of the war. Infantrymen of the U. S. 69th Division and the Soviet 173rd Guards Regiment worked their way carefully to the Elbe River, found each other and shook hands.

Above all, it was the spring in which the future of Germany was settled. It had taken a whole war to figure it out, but we had decided on what we were fighting for. To reach agreement had been as difficult as any campaign of the war. Only five years before, the Allies had been virtual enemies.

In 1933, it was mainly parties of the Left which marked Hitler as an enemy. In the United States, people who opposed

the Nazis in those years were later labeled "premature anti-fascists." Remembering the manufactured atrocity stories of World War I, people had discounted the stories of fascist repression as propaganda. Now it was found that Belsen and Dachau and Buchenwald could be smelled before they were seen. The truth was worse than any stories. After twelve years the whole world saw Nazism for what it really was and there was a determination to end it forever.

In February, 1945, Roosevelt, Stalin, and Churchill met at Yalta. Their joint declaration of February 11th stated:

"It is our inflexible purpose to destroy German militarism and nazism and to insure that Germany will never again be able to disturb the peace of the world. We are determined to disarm and disband all German armed forces . . . eliminate or control all German industry that could be used for military production; bring all war criminals to just and swift punishment. . ."

Five months later the Big Three met again. The war with Germany was over and two of the three most important leaders were newcomers, but there was no change in declared policy. In the Potsdam Declaration of July 17th, Stalin, Truman, and Attlee stated:

"The purpose of this agreement is to carry out the Crimea Declaration on Germany. German militarism and Nazism will be extirpated and the Allies will take in agreement together, now and in the future, the other measures necessary to assure that Germany never again will threaten her neighbors or the peace of the world."

The policies of the Crimea and Potsdam meetings were not forced on the United States. Quite the contrary: if anything, American policy was more severe and more determined to wipe out German fascism. Top American plans for the occupation of Germany were contained in a directive from the Joint Chiefs of Staff to the U. S. commander in Europe, General Eisenhower. This directive, known as JCS

1067, had been approved in the White House on May 11, 1945, after a long internal wrangle in Washington. It represented a triumph for the vigorous and unfaltering anti-fascist position of the Secretary of the Treasury, Henry Morgenthau.

JCS 1067 went into full detail as to the steps which should be taken to cut out the heart of the Nazi war machine. Concerning industry it stated that:

" . . . the Control Council should

"a. prohibit and prevent production of iron and steel, chemicals, non-ferrous metals, machine tools, radio and electrical equipment, automotive vehicles, heavy machinery . . . except for the purposes [of preventing starvation or such disease and unrest as would endanger the occupying troops]

"b. prohibit and prevent rehabilitation of plant and equipment in such industries [except for the needs of the occupying forces] . . ."

Thus, the conquering Allied powers went into Germany fully prepared with a policy for running Germany after the war. The policy was affirmed and reaffirmed by all three of the major powers and supported by opinion throughout the world. With Germany completely defeated there seemed to be no possible bar to putting the policy of the Crimea and Potsdam meetings into action.

And yet—one year after the war ended, the agreed policy for occupying Germany had gone up in smoke.

Above everything else, agreement on a policy for occuping Germany had been a product of the unity of the Big Three. Germany had been the common enemy, Germany conquered remained the center point at which the interests of the Big Three met—and clashed. The breakdown of a common policy for the occupation of Germany was a by-product, and the clearest sign, of the perilous disintegration of relations among the United States and Great Britain and the Soviet Union.

After a year of occupation the breakdown of relations was

so bad that it was impossible to get a complete over-all picture of what was happening throughout Germany. But the inside view of what had happened in the U. S. Zone of Occupation was bad enough, all by itself. What was known of the British Zone made the picture worse.

In spite of strong statements of policy and a wealth of dubious statistics, the fact remained that the Nazis had not been swept out of German life in the U. S. Zone.

For years before the war ended industrial disarmament had been preached as an absolute necessity, and it was included as one of the most powerful measures in JCS 1067. Yet there was almost no dismantling for reparations or plain destruction and IG Farben itself, key industrial war criminal, showed signs of regrowth.

In the British Zone it was charged that large organized formations of the Wehrmacht were being preserved. This charge was hardly denied and certainly not disproved.

At first, when it was apparent that all was not well in the management of Germany, there was a tendency to put the blame on the French. General McNarney, as successor to General Eisenhower, issued statements during the Fall of 1945 to the effect that the trouble was caused by lack of a central government in Germany, and that the French were preventing formation of a central government until the question of the Ruhr and the Rhineland was settled.

Now many things in truth were going wrong in Germany, but lack of a central government was one of the least of them. Much more important were the facts that there had been no thorough denazification; that reparations had not even started to move; that a fight between British and Russians had prevented settlement of the really major question—how much industry would the Germans be permitted to have? Had the key policy questions been settled, it would have been a relatively simple administrative problem to proceed to run Germany efficiently, and prevent chaos and starvation. The

present state of affairs does not even help the German people as a whole; only the Nazis stand to gain.

In every problem the root of the trouble was the same. Follow the threads of debate in the Allied Control Council far enough and in every case you come to the same falling apart of the big powers. The typical line-up showed the Russians and British at opposite poles with the Americans and French somewhere in between. More and more, as the months went by, the American position moved closer to the British.

To judge absolute right and wrong in these cases is impossible. But the *directions* in which the nations move can be clearly enough seen through a veil of back-and-forth maneuvering. The Russians have moved generally in the direction of a peace treaty which would end in a thorough wiping out of the German war-making potential. The British, from the very beginning of the occupation period, have fought consistently for a program much easier on the Germans. The representatives of the United States have moved both ways at once; but for every step in the Russian direction there have been three in the British direction.

For the British there was never any real internal conflict. They were signatories to the Crimea and Potsdam Declarations but it is possible they signed without fully subscribing to the meaning. For the United States the case is different. American policy, as written in JCS 1067, would have uprooted the basis of fascism and was, incidentally, similar to the Russian position. A year of occupation of Germany made an utter shambles out of JCS 1067.

The position of IG Farben during the occupation offers a case study for the rest of German industry. As far as the American Zone was concerned, IG was recognized from the start as a Number One war-maker. In fact, as a tribute to its great services to the Nazi State, IG was honored by a special U. S. Military Government law, aimed at making it

harmless. On July 5, 1945, the U. S. Military Government issued its General Order No. 2, directed specifically at IG Farben. The order contained a three-way attack on the IG: the whole of IG's property was to be available for shipment out of Germany as reparations to the United Nations; if not moved out, any parts of IG used in war production were to be destroyed; ownership and control of the IG empire was to be broken up.

General Order No. 2 was bolstered by a Special Order issued on the same day. The Special Order appointed an IG Farben Control Officer and flatly instructed him to " . . . prevent the production by and rehabilitation of [IG] plants . . . except as may be specifically determined to be in accordance with the objectives of the United Nations."

The outlook for IG Farben was very black. There had never been any question in the minds of the leaders of IG about their fate at the hands of the Russians: they had carefully destroyed important war plants in the path of the Red Armies and all of the leaders who could get away in the last days hurried to meet the advancing U. S. and British forces. And now, for their pains, they were jailed and orders were issued which seemed to make further operations impossible.

Investigation of IG Farben was conducted by the Finance Division of the U. S. element of the Allied Control Council for Germany, under Colonel Bernard Bernstein, leading representative in Germany of the group which had written the basic policy document, JCS 1067. No matter how difficult it might be to probe into the scattered records of IG Farben, at least there was no chance of a white-wash.

But support for IG was in the making, along several lines. The attack against IG was based on JCS 1067. However, even before the war ended there was strong pressure, notably from the British, directed against the position which JCS 1067 represented. For example, in the early months of 1945 a conflict developed between British and American

officials over control of inflation in post-war Germany. The British argued for a program giving top priority to controlling German inflation. The American side countered by pointing out that: 1) while no one wanted unnecessary chaos in Germany, effective inflation control was beyond the power of the Allies because 2) the British program would force main emphasis on reviving the German economy whereas 3) it was the main task of the Allies to eliminate German warmakers and their industrial base.

Soon enough, also, opposition to JCS 1067 developed within the top circles of American leadership. Chief political adviser to General Eisenhower and to his Deputy Military Governor, General Lucius Clay, was Robert Murphy of the State Department. In North Africa Murphy had been known as a supporter of the Vichyite Admiral Darlan. In Germany he played a more cagey game. The actual lead in the attack on the JCS 1067 policy was taken by the Economics Division of the American Control Council group. The commanding officer of the Economics Division was Brigadier General William Draper, formerly with the Wall Street firm of Dillon, Reed & Company.

An American investigator probing into the affairs of the great German steel trust, Vereinigte Stahlwerke, came upon a letter to a Vereinigte Stahlwerke executive dated in the 1930's—and signed by William Draper of Dillon, Reed. It was a quite normal, friendly, business letter. Certainly there was nothing illegal in the writing of such a letter in a normal, peace-time year. But certainly also it was expecting a great deal to suppose that men whose entire careers had been spent in friendly dealings with German businessmen could suddenly turn about and destroy their former associates. The Economics Division was staffed by such American businessmen, in army uniform. As one of them remarked frankly, "How can you expect us to punish the Germans for things we would have done in their places?"

From the beginning Colonel Bernstein and his group were in continuous conflict with Murphy and Draper and their staffs. In September, after only four months of the occupation of Germany, Bernstein was removed as Finance Director. The Economics Division, under General Draper, was winning out.

Barely a month after the signing of the Potsdam Agreement in July Draper appointed a German Standard of Living Board which proceeded to stand the Potsdam Agreement on its head and rip out its heart. At the head of the new Standard of Living Board was Calvin B. Hoover of Duke University.

The basic approach of the Potsdam Agreement and preceding policy had been: how much of the German economy must be removed or destroyed to finish Germany as a war threat? General Draper sent Dr. Hoover and the Standard of Living Board off in a new direction: how much industry must the Germans have to provide themselves an adequate standard of living? And to make sure that the standard would be high enough, the Board twisted not only the spirit but the specific words of the Potsdam Agreement. The Agreement had stated that Allied controls would be imposed to assure production which would " . . . maintain in Germany average living standards *not exceeding the average of the standards of living of European countries.*" Hoover's Board interpreted this to mean that the Allies were called upon to *guarantee for the Germans standards no lower than prevailed in Europe.*

The immediate effect was to raise German production standards, to cut the amount of equipment which could be taken as reparations, and to leave the German war potential much more nearly intact. The basic industry, steel, was typical of the rest. Early U. S. estimates (as for example by the Foreign Economic Administration) of the amount of steel capacity which would have to be left in Germany had tallied closely with Russian estimates—five million tons per year or less. The report of the Hoover Board permitted

about eight million tons annual capacity or more.

The effects of all this on IG Farben were quickly seen. Shortly after the Hoover report was made stock markets were permitted to reopen in three German cities: Hamburg in the British Zone and Frankfurt and Munich in the U. S. Zone. IG Farben had been done away with by Military Government order, but now IG stock reappeared on the exchange. The dead corporation showed surprising vigor: trade in IG stock was brisk and the price rose.

Something was clearly wrong. Simultaneously, two investigations of current IG Farben operations were made. Reports were submitted in the middle of December, 1945, and it turned out that the Germans who were bidding for the stock of IG knew what they were doing.

This was seven months after the Germans had surrended, five months after a special IG Farben control authority under Colonel Edwin S. Pillsbury had been set up to take special care that IG Farben should not be rebuilt.

Pillsbury had been specifically ordered by General Eisenhower to prevent production in the IG plants "except as may be specifically determined to be in accordance with the objectives of the United Nations."

The investigators discovered that production had started in all important IG plants in the U. S. Zone. Apparently, it was thought that any and all production in IG plants was in line with United Nations objectives. In the best tradition of American engineering, the U. S. Control Officers were seeing to it that the wheels would turn again—in factories which had been the center of the Nazi war effort.

German plant officials testified that their production was still low only because of shortage of fuel and raw materials. As far as the Control Officers were concerned, the Germans said, everything was fine. The Germans' requests for production authorizations were always approved; sometimes they were even boosted.

Just how Colonel Pillsbury proposed to determine whether production was in line "with the objectives of the United Nations" could not be seen. There were no central records which permitted adequate control of production plans. There was no evidence that any plan prepared by German management had ever been rejected by Pillsbury's office.

For some of the old IG plants, like the works at Hoechst near Frankfurt, the argument was made that the German people were completely dependent on them—for pharmaceuticals, for example. But the purely war-time plants of IG were also starting all over again. Hidden in the forests of eastern Bavaria was the Gendorf plant. Gendorf was one of a group of a dozen chemical works built by the German State, solely for war production, and operated by IG Farben. Gendorf would never have been built except for one main item of production: mustard gas. And now it developed that Gendorf, too, was producing again and big plans were being made for its future. It was an excellently equipped, modern plant, well camouflaged and never injured during the war. In the process of making mustard gas, large quantities of ethylene di-glycol were produced. Ethylene di-glycol happens to be the same thing as Prestone, sold in America as an anti-freeze. So now Gendorf was producing large quantities of anti-freeze, with only one last unit of the plant needed to make mustard gas standing idle.

According to the Potsdam Agreement the whole schedule of reparations was to be settled by February 2, 1946, and advance deliveries were to start well before the February deadline. By the middle of December, 1945, not one item of IG equipment had been shipped out of the U. S. Zone as reparations. There had not even been any preliminary dismantling to get ready for the reparations shipments. Instead, investigators stood by and watched while equipment was moved from a government-built plant at Bobingen to the nearby IG Bobingen silk works.

There were units in all of the IG plants which had no use at all except for war production; there were more than a dozen plants which, as a whole, were built only for the war. Yet none of these were destroyed except for a few units in two plants. The destroyed units made interesting newsreel shots but their destruction had little effect on the fifty-five manufacturing installations which IG Farben owned or operated in the U. S. Zone.

In all respects the picture was one of regrowth of IG Farben. Although many of the leaders of IG had been removed and some were still under arrest there were signs of renewal of the old interconnections among the IG plants. This, too, ran directly counter to JCS 1067 and the Potsdam Agreement. As agreed by the Big Three at Potsdam: "At the earliest practicable date, the German economy shall be decentralized for the purpose of eliminating the present excessive concentration of economic power as exemplified in particular by cartels, syndicates, trusts, and other monopolistic arrangements."

In Munich lived a man named Gebhard Orth. Orth had been IG salesmanager for all of Bavaria. Investigation revealed that Orth was now acting as representative for the reformed mustard gas works at Gendorf and to keep things running smoothly was serving as go-between for IG plants all over Bavaria with contacts re-established as far west as Frankfurt. Orth's operations extended into the French Zone of Occupation where informal transfers of equipment were arranged between Gendorf in the U. S. Zone and the great works at Ludwigshafen in the French Zone. When interviewed by American investigators, Orth was full of plans which he was negotiating with the Bavarian Ministry of Economics. For example, a new power unit was planned for Gendorf which would permit it to expand production greatly.

In May, 1945, shortly after being arrested, Max Ilgner wrote a letter to two of his assistants. He instructed them

to keep in touch with each other and the rest of the IG officials. He stressed the need to keep the organization alive because, he predicted, the Americans would eventually permit IG to start over again. So cocksure was Ilgner that he sent the letter by an American intelligence agent, and his letter urged his colleagues to seek American assistance in getting in touch with one another.

The Ilgner letter was not delivered. But the IG men did not need such instructions. Although JCS 1067 and the Crimea and Potsdam Agreements remained on the books and IG Farben was officially dead they made a good start at a whole new cycle of growth for IG.

The reports which were issued in December caused only a minor set-back for IG. A few more minor plants were declared "available for reparations." By law, *all* of IG Farben had been "available for reparations" from the beginning.

With the Soviet Union and the Western Powers moving further and further apart, the whole idea of reparations began to take on the quaint aspect of a historical curio. The break-up of the Big Three was the salvation of IG Farben.

The progress of IG Farben under American occupation was typical of industry as a whole in the U. S. Zone of Germany. And the failure of industrial disarmament was typical of the collapse of the whole program to cut out the evils of the German system.

Nothing was given higher priority than the denazification program. Here the whole question of leadership in Germany was involved. If IG Farben, for example, was never to plan and produce for war again, guidance of German government and industry had to be taken from the hands of those who believed in war as a way of living. The first and most direct approach to this problem was to wipe out the influence of the Nazi Party.

In general terms there was no doubt about what was wanted.

JCS 1067 had stated that all active supporters of Nazism or militarism would be excluded from public office or from positions of importance in industry, agriculture, finance, commerce, or anywhere else. Exactly how to carry out denazification was a harder question.

Should all Nazis be rounded up and shot? They had done as much to people who opposed them.

Should they all be given speedy trials and at least sent to jail? Should they be deprived of property and all political rights? And finally, who were the Nazis and were there good ones and bad ones among them?

There seemed to be too many questions to answer all at once. To make a beginning, in June, 1945, an over-all U. S. policy was worked out which aimed at knocking the Nazis out of positions of importance. Emphasis was on jobs: other punishment could come later.

But even on this basic level there was a policy fight. And as usual, the Political Adviser, Robert Murphy, was lined up against Colonel Bernstein and the men who sought to apply the anti-Nazi principles of JCS 1067. Bernstein and his deputy, Russell A. Nixon, argued for a clean sweep. "Get rid of all of them now, while we have the chance," Nixon said. "Clean out industry as well as government. Then we can properly begin the re-education and re-building of Germany. And we can give the anti-Nazi Germans a chance to get started."

Murphy's men argued for mandatory removal of only the leaders of the Nazi Party. A compromise was reached: all Nazis who had joined the Party before May 1, 1937, were to be kicked out of jobs of any importance. In May, 1937, the Nazi leadership had felt secure enough in its position at home to open its ranks to new members. People joining after that date were certainly opportunists, but perhaps not as dangerous as the die-hards who had been in the Nazi Party all along.

A major point against kicking Nazis out of all important jobs was that everything would break down. The Nazis had all the leaders, all the brains. Thorough denazification would end in chaos.

The Finance Division set out to disprove that claim by actual practise. Denazification teams headed by Nixon, Bruce Waybur, and Isadore Salkind traveled throughout the U. S. Zone. Nazis were summarily thrown out of banks and public finance offices. And, strangely enough, the banks continued to operate. It developed that, in spite of millions of killings, the Nazis still did not have a monopoly on leadership.

Unfortunately, the Finance Division was the only operating unit of the U. S. Group Control Council which sent out investigators to check up on the work of denazification. For the most part, denazification was left to the discretion of local military government detachments. In some cases the local officers received hints from visiting firemen from headquarters to go easy on the Nazis. For example, there was the case of Colonel Joseph Starnes. He had been a member of the U. S. Congress and vice-chairman of the Dies Committee. After his defeat in the 1944 elections, he was given an army commission and a place in the army of occupation. Starnes made one tour of Bavaria in which he happened to visit a series of towns just ahead of investigators from the Finance Division. The investigators found that in each town Starnes had told the local officers to forget about denazification and to get things operating. What the Germans needed, he said, was a balanced budget.

The officers in the local military government detachments faced heavy responsibility with little preparation. Many of them had been drawn from combat outfits without any special training for the duties of the occupation. While the enemy was shooting at them they had been good soldiers. But they were ill prepared to preside over the post-war misery of the Germans.

The soldier of the army of occupation soon found himself more friendly with his late enemy, the German, then he had been with his allies, for example, the French. He was inclined to feel that he had liberated the Frenchman and that he would therefore be forever the creditor of France. The German, as an enemy, owed him nothing. He could apply a different, and much more generous, standard to the defeated enemy.

A new ruling class suddenly made an appearance in Germany. The group consisted of young women, pretty, with at least passable command of English, at least passable in office work—and preferably without too blatant a Nazi past. The American officers who were in charge of German towns badly needed secretaries, translators, and, like nearly all soldiers, women companions. Attractive English-speaking German girls met all requirements. If the American officer started off without any deep-seated convictions about Germany and the Germans, the translator-secretary-companion could supply them. She could be counted on to point out the "good" and the "bad" people in town. She became in due course an adviser and, ultimately, made local policy.

As the first summer of the occupation of Germany passed, it became clear that the program of denazification was foundering. A fair job was done in the banks and in local government. But the whole of industry, the particular province of the General from Dillon, Reed—William Draper—was barely touched. Commerce, the railroads, communications generally, literally reeked with the odor of undiluted Nazism.

Failure of denazification could not readily be seen in official reports and statistics. Ambassador Murphy had reported in August, 1945, that denazification was substantially complete. However, as upward of ten million Americans found out through personal experiences, Army statistics can sometimes be misleading.

The Army abounds in stiff punishments which are rarely visited upon any ranks higher than sergeant. The theory of

punishment for all ranks persists, nevertheless, and it is therefore expedient never to admit a failure or omission. And since it is peculiarly difficult for the Army to punish its officers it is also expedient not to look too closely at or under the cover-up. Probably no agency enjoys the admission of error. But the Army is better able than any other organization to stifle criticism within its own ranks and cover its tracks. For these reasons Army statistics on any debatable subject are likely to baffle the orthodox statistician. The figures which reported the fiction of denazification were a striking specimen.

But anything connected with the Nazis was too hot a subject to remain buried for long. As they traveled throughout the U. S. Zone field investigators of Colonel Bernstein's Finance Division were buttonholed by anti-Nazi Germans and sincere MG officers working against great odds who put the finger on case after glaring case of Nazis in key positions.

The facts were laid before General Eisenhower and General Clay. At about the same time they were also laid before the world. A group of newspapermen had gone to General Patton, then in command of the Third Army which occupied all of Bavaria, or roughly sixty per cent of the U. S. Zone, to ask his views on denazification. At first General Patton was not disposed to see the press. Then he was persuaded to grant a four-minute interview. Once he started speaking he kept on going for half an hour. And he had a great deal to say. Yes, it was quite true that a clean sweep of the Nazis had not been made. The whole business was much exaggerated, anyway. The General likened the fight between Nazis and anti-Nazis in Germany to a quarrel between Republicans and Democrats at home.

The explosion which followed brought out in cruel highlight the failure of denazification. General Eisenhower stepped in and removed Patton from the command of the Third Army. Whatever General Eisenhower may have felt

about it personally—the two men went to a football game together a few days later—the effect was clear. This time the American forces meant business. General Clay thundered to his division directors: We must go through with our denazification program if we do nothing else!

A new law was enacted, under Clay's personal sponsorship, putting the burden of kicking out Nazis on the Germans. The new law, known as Public Law No. 8, went into effect September 26, 1945. As laws go, this one was very simple. It was aimed specifically at the most gaping holes in denazification: industry, commerce, and transportation. It simply required that German employers, under penalty of fine or imprisonment, remove all Nazis from any positions of responsibility in any kind of business or industrial concern.

Here, finally, was what looked like the clean sweep. Now the job would have to be done, by the Germans themselves, and American officials need only inspect the results to insure compliance. IG Farben and the rest of German industry would be in safe hands.

And yet, once more the end was a fiasco. There were three weak spots in the handling of Law No. 8, any one of which would have been enough to sabotage denazification. The law had stated merely that Nazis must be removed from *positions of authority or responsibility*. In so many cases that it soon became the rule, a matter to be taken for granted by American officers and Germans alike, ranking Nazis were merely let go from their responsible jobs and rehired as janitors or repair-men to do exactly the same work, frequently with their old salaries. Secondly, the Germans quickly discovered that they were not subject to any close inspection; in many cases they simply disregarded the law without even bothering to go through the process of changing the titles of their Nazi staff members. Thirdly, the German boards set up to hear appeals were rarely staffed with anti-Nazis. All too many Nazis got themselves a clean bill of health from the boards.

By the end of 1945 Law No. 8 was also marked as a failure. A team of inspectors representing the Public Safety Division of the Office of Military Government reported in January, 1946, that violation of Law No. 8 was so widespread as to have become normal. The report was so damning that, according to testimony presented to the Kilgore Committee by Russell Nixon, it was ordered suppressed by Brigadier General Meade, Director of Internal Affaffirs in the U. S. Zone and chairman of the Denazification Policy Board.

As a final admission of defeat, the American authorities now dumped the whole problem back in the laps of the Germans. The Army of Occupation was dwindling. At full strength the Army had not had the will and clear-cut determination to drive the Nazis out of all positions of influence. Now the Germans were told to draft their own denazification law, to be enforced by themselves.

On March 5, 1946, the heads of the three States, or*Laender,* in the U. S. Zone signed a German denazification law which took the place of all preceding American laws and directives. We had failed to drive out the Nazis ourselves. Now, with many Nazis still clinging to positions of importance, we gave the Germans free rein. Hitler had had twelve years in which to kill off all fighting opposition. The efficiency of the Nazi State was at its highest point in the scientific application of police repression. Of the large body of men and women who understood fascism and had the courage to fight against it in 1933 only a pitiful handful survived. After only ten months of military government the anti-fascist remnant was hardly in a position to hold its own against the still-vigorous German fascism.

Men in the German State governments who co-operated with the U. S. forces now walk literally in the shadow of death. Just as after World War I ultra-nationalistic gangs are organizing with "death to collaborators" as a main slogan. In this sense, a German anti-fascist, working with the Amer-

icans to root out the Nazis, is bound to be a collaborator. We are leaving such men less and less able to defend themselves.

The failure of denazification in the U. S. Zone is a major retreat from the program agreed to at Potsdam. It is worth probing for the reasons behind the failure. In part, the explanation lies with the men on the ground levels of the occupation who became friendly with the defeated enemy. But this explanation does not carry very far. Soldiers are still subject to orders. Some of the officers were bitterly and openly opposed to the anti-Nazi program contained in JCS 1067. There were men like Lieutenant Colonel George Auffinger, deputy Military Governor of Wuerttemberg-Baden, who bluntly stated that if field investigators had not come to his office he would not have had to comply with the denazification directives. But again, this is not enough to explain what amounted to a total reversal of a clear policy.

The true explanation lies in the troubled field of relations with the Soviet Union. There was never any doubt in anyone's mind, least of all in the minds of the Germans, that in the Russian Zone of Occupation the important Nazis were going to be run out of business. From the beginning there were ranking American officials who feared that if we followed suit, in line with JCS 1067 and Potsdam, we would help create a new Germany more in line with Russian policies than our own. At least the western half of Germany must be a buffer against Soviet influence. This has been the main point not only of the slacking up of denazification but also of the counter program of getting things back into operation as quickly as possible.

Particularly enlightening in this connection is the case of Richard Freudenberg. Freudenberg had been both a top-rank German industrial leader and a member of the Nazi Party. His position put him far above the ordinary pressure of the Party. He did not have to join but did, and took an active part in Nazi leadership of economic affairs. He was

a leading manufacturer, the boss of a company town, and held numerous business directorships. Among other things he was a director of one of the two biggest private banks in Germany and was thrown into jail for interrogation in connection with his share in the large scale looting of foreign countries handled by the big banks for the Nazi State.

By all the laws and directives of military government Freudenberg should have been removed from his industrial jobs. He was clearly one of the top group who, aside from the obvious handline figures like Goering and Himmler, were most responsible for the crimes of Germany.

The local MG detachment in Freudenberg's area appealed for permission to exempt him from the denazification orders. The case reached the top Denazification Appeals Board in Frankfurt where, in spite of Freudenberg's record, he was granted exemption by a vote of four to one.

The statement of the representative of Ambassador Robert Murphy's staff was most revealing. Murphy's man said:

"What we are doing here through denazification is nothing less than a social revolution. If the Russians want to bolshevize their side of the Elbe that is their business, but it is not in conformity with American standards to cut away the basis of private property."

The Appeals Board member from the Industry Branch sided with the representative of the Political Adviser, saying: "This man [Freudenberg] is an extremely capable industrialist, a kind of Henry Ford."

These statements were made in the Summer of 1945, before "Get tough with Russia" had become an accepted policy.

The action of Ambassador Murphy's office in the Freudenberg case was typical; and it opened the way to a reprieve for the leaders of IG Farben and the clique of Rhineland industrialists who put Hitler in power. As General Eisenhower's political adviser Murphy was fully responsible for the political tone of the new Germany the American forces

were rebuilding and therefore for carrying out the denazification directives. Yet Murphy and his men took no part in the checking up on denazification in the field, they continually exaggerated the amount of denazification already accomplished, and in all policy fights over the handling of the Nazis they consistently lined up on the side of easier treatment.

The story of denazification in the other three zones of Germany completes the picture of a sharp split between the Russians and the Western Powers.

It was taken for granted—particularly by the Germans—that it would go hard with Nazis in the Russian Zone. There is no evidence to counter this impression. In truth, the Russians' job of wiping out Nazi influence was easier than it was in the western parts of Germany: all the leading Nazis who could manage it pulled out of eastern Germany ahead of the Red Army and trusted to their luck with the British and American armies.

In general, the Russians concentrated first on the leading fascists. For the smaller fry the policy was more flexible. They were subject to close inspection; any move out of line was severely punished. To destroy the main seats of reactionary power an ambitious program of breaking up Junker estates was started. In the same way, although there was no general program of nationalization of industries, concerns which had been completely dominated by Nazi influences were taken over by the State.

The French Zone, by contrast, did not come up to expectations. It had been assumed that the French treatment of the Nazis and militarists would be particularly harsh. There was the century-old national feeling; there had been four and a half years of Nazi occupation of France; and finally, there was no doubt that the new French government would be strongly anti-fascist.

But when the war ended in Europe, there was no French government. France was represented in Germany by De Gaule-ist and career officers of the Army, by old-line officials of the former Foreign Office staff, and by outright Vichyites. Throughout the first year of the occupation, while France struggled through the phases of a Constituent Assembly, these officials remained as representatives in Germany. The position they took was a pale reflection of what was going on in the British and American Zones. If anything, the French denazification program was weaker than that in the U. S. Zone. There was a small migration of suspect war criminals across the boundary line from the American into the French Zone. In March, 1946, Alfred Biscarlet, one of a commission which inspected the French Zone of Occupation for the Constituent Assembly, issued a report which indicated that there had been almost no removal of Nazi influences. Quite the contrary, French officials had removed anti-Nazis from posts of responsibility.

Whatever the failures of denazification in the American and French Zones, the main center of unreconstructed Nazism remains the British Zone. The British started the occupation on the principle that the main job was to get things moving again. The great victory of the Labour Party in the summer of 1945 made not the slightest visible difference in this policy.

In an abandoned munitions plant near Kassel the American Army established what was called the Ministerial Collecting Center. Here were brought high-ranking officials of all the main departments of the Nazi State, for the most part men who by their records were subject to automatic arrest. These top level Nazi leaders and bureaucrats were given the job of putting in order the records of their departments against the day when a central administration for Germany would be created. They were paid for their work, frequently at higher rates than other Military Government divisions could pay anti-Nazi consultants. They ate U. S. Army rations. They attended

American movies at night. Some of them even had their families with them. The Ministerial Collecting Center therefore was a highly attractive place for Nazi government leaders tiding over bad times. Even so the population of the Collecting Center steadily dwindled; in almost all cases the reason given was that they were being taken away to the British Zone for important advisory jobs.

The traffic in German reactionaries was mainly in one direction. A key figure in the loot of occupied countries by the big German banks was one Hermann Abs. Abs was wanted badly in the American Zone in connection with an investigation of German banking machinations. But months of negotiation for Abs's transfer to American hands got nowhere: Abs was being employed as an essential financial adviser by the British.

Orvis Schmidt of the U. S. Treasury testified before the Kilgore Committee concerning some of the men whom the British had picked out for top jobs. For example, there was Assemblyman Pferdmenges of the British-appointed Rhenish Provincial Assembly. Pferdmenges was an active Nazi, a director of a Cologne bank, a leader of the big electric trust, the AEG, one of the heads of Vereinigte Stahlwerke. He was one of the lucky ones who got out of Berlin in time and started operation in the British Zone. There was the case of Abraham Frowein. Frowein was a director of the synthetic silk trust; following the anti-Jewish ordinances of 1938 he took over the department stores of the Tietz concern. During the war Frowein had been a confidential adviser to the Minister of Munitions and Armaments. Frowein also prospered at British hands. He was appointed to the British-created Economic Advisory Board as a member of the "Committee of Three." After more than a year of the occupation the British reorganized the economic council and Frowein resigned.

Generally speaking, the British have filled the key jobs with reactionary nationalists who, though perhaps not Nazis

themselves, were part of the group which paved the way for Hitler in the early 1930's. A man like Alfred Hugenberg, who was a leader of the German National Party and played an important part in the maneuvers in 1932 which brought Hitler to power, lives safely in the British Zone and issues statements on policy. Less well known than Hugenberg, but of exactly the same political stripe, was a Dr. Lehr, picked by the British to be the first president of the Rhineland Zone.

The direct attack on IG Farben failed. The main plants—foundation stones of the old IG like Leverkusen, Hoechst, and Ludwigshafen—still produce on a large scale. And the indirect attack through denazification failed as well.

Denazification was essentially a fight for key points of control. The Germans who were left in the important posts in government and business would determine the whole mood and direction of the country. From the record it must be said: the first year of denazification in western Germany was a failure. The German political climate was still healthy for the growth of aggressive monopolies like IG Farben.

13
To Make Amends

In the last analysis the future of IG Farben hinges on the reparations program agreed to by the Big Three at Potsdam. Applied literally, the terms of the Potsdam Agreement would still leave Germany an industrial nation, but reparations would drain off all the excess productive capacity necessary to make war. IG could no longer hope to dominate the world as it once dominated Germany and most of Europe. The springs of aggression would run dry.

In the last analysis, too, the reparations program is one of the answers to the pay-off question: will there be agreement with the Soviet Union? Just as Germany was the main target against which the Allies co-ordinated their attacks during the war, so now Germany remains the cross-roads of foreign policy at which agreement must be found or the peace lost. And the question of reparations from Germany remains one of the single biggest points at issue.

The Potsdam Agreement may have weak spots, and in a few places it is slightly contradictory. But there is not the least doubt about the kind of program which emerges from

the document. It is a program which would wipe out IG Farben and the whole of Germany's war-making potential. It would force Germany to make good a little of the damage done in World War II. And it would prepare the way for the birth of a democratic Germany by wiping out the deeply-rooted influences of the Nazis and militarists.

Of all the sections of the Potsdam Agreement that devoted to reparations is one of the clearest. It recognized the fact that Russia and Poland had been by far the most damaged countries in the war. Therefore all material taken from eastern Germany as reparations would go to the Soviet Union and Poland. In addition, they would get about twenty-five per cent of the material taken as reparations from the western half of Germany.

In the approach to reparations at Potsdam, an honest effort was made to avoid the mistakes which followed World War I. Then Germany was forced to pay the cost of the war out of *production.* The cost was placed so high that German production had to be revived with Allied help; if the bill had ever been paid, products of the Allied Nations would have been driven from world markets to make way for German goods. This time it was agreed that the Germans would pay, not by the production of goods, but by the transfer of equipment, including whole plants. Thus, at one blow, the German war-making potential would be cut down and damage done to Allied countries would be restored. The backbone of the German war machine, heavy industry, would be reduced to bare essentials, but Europe as a whole would be no poorer: use of Germany's machines would simply pass into more deserving hands. The magic of IG synthetics would become the property of the nations which won the war against German fascism.

Naturally, there were vague points in the reparations agreement. But the agreement was as definite as anything in words can be on the amount of time to be used in ending

the vagueness. The whole program was to be settled by February 2, 1946, at the latest. Furthermore, advance deliveries were to begin well before the February deadline. The force of this decision was backed up by the signatures of the Chiefs of State: for the United States and Great Britain, President Truman and Prime Minister Attlee.

The Potsdam Agreement was signed early in August. Later in August the Russians put in a request for forty-one plants in advance delivery. But when the Foreign Ministers of the Big Three met in Moscow in September nothing had been moved. The Soviet Union pointed to the advance delivery clause and asked for an immediate beginning of reparations. In October the Economics Directorate of the Allied Control Council agreed that thirty plants should be shipped at once: thirteen from the British Zone, fifteen from the U. S. Zone, and two from the French.

The Foreign Ministers met again in December, in London. Again nothing had been moved. Again the Russians asked for an immediate start. Again there was agreement. And again nothing happened.

The February 2, 1946, deadline came and passed. Still there had been no advance deliveries and there was not even a settlement on how much and what was to be moved. Late in February the Soviet Union sent a sharp protest to the American government, pointing to the failure of the reparations program and indicating the importance with which it was regarded.

Finally, in March and April, 1946, deliveries were started. By the end of April equipment from plant No. 3 of the Bremen Daschimag was put on board ship for movement to the USSR. Equipment from three other plants, including the power unit from the IG Farben-operated Gendorf works, had been shipped by rail to the Bremen port. But all this was from the U. S. Zone. As of April 3, nothing had been moved from the British or French Zones.

After this small beginning, with the Potsdam schedule already twice broken, General Clay announced on May 26th that all deliveries on reparations were being stopped. The effect of the announcement would have been stronger if shipments had ever been fairly started.

The reason given for stopping reparations deliveries was that old bugaboo of occupation policy, the failure to centralize Germany. Back in the Fall of 1945 it had been convenient to blame all shortcomings of the occupation on decentralization, and to blame the French for decentralization. The truth was that the French had only asked that settlement of the questions of control of the Ruhr and the Rhineland be made before centralization. They argued that if Germany were first put under a central administration it would prejudice the chances of even considering the internationalization of the Ruhr. Now General Clay took the position that if Germany were not centralized the U. S. Zone would need more industrial capacity to maintain a minimum standard of living and therefore reparations would have to be stopped.

Actually, a central administration for Germany is one of the least controversial issues. No one is against it. With a central administration there are still dozens of forms which German government can take. No matter what form is adopted the major questions will still be: Have the Nazis been cleaned out? Has there been an end to militarist influence? And have we knocked out the German war-making industrial potential?

The real argument over reparations has centered on the question of how much industry is to be left in Germany. And back of this is the problem of relations with the Soviet Union.

Communications from the U. S. Military Government in Germany to the War Department in Washington show clearly enough what is really at stake. In dispatches sent during June, 1946, Russian requests for reparations were described as " . . . unrealistic and would seriously impair the reactivation of industry in the U. S. Zone."

There is a little truth in the last half of this statement. The only question is: at what point did "reactivation of industry" become America's major job in Germany?

Along the same line, the French requests for coal were also termed " . . . unrealistic and would have a disastrous effect on the German economy."

Here there is some disagreement as to what is "unrealistic." By French standards of realism, apparently, weight is given to the fact that for four and a half years France was drained of everything the Germans needed, and the French people went cold and hungry to provide comfort for the German war-makers.

The whole matter of coal production is an interesting example of the current type of blackmail practised by the Germans. The British have given top priority to reviving coal production in the Ruhr. Extra diet was provided for the miners. Yet production has remained low, so low that little can be spared for shipment to France, although before the war France was a heavy consumer of German coal. Curiously, at each crisis in policy toward the Germans, the Germans appear to have bolstered their position by a sag in Ruhr coal production. At the same time, output of the Silesian coal fields in the eastern part of Germany had passed prewar levels by April, 1946.

The Potsdam approach to reparations was based on actual conditions as they existed at the end of the war. For this very reason it became the center of international political conflict. As the most war-damaged nation, the Soviet Union would receive the lion's share of German industrial equipment. The more you took from Germany, the more you gave to Russia; conversely, the less you bothered the Germans and the more war potential you left them, the less you helped rebuild Russian industry. For those who feared the Soviet Union above anything else on earth it became a matter

of prime concern to preserve IG Farben and the rest of German industry.

To save German industry it was necessary to invalidate the Potsdam Agreement. Considering that the Agreement was signed by the highest ranking representatives of the three strongest powers in the world, that its ideas were in the direction of all the agreements worked out during the war, and that it was backed by the feelings of everyone who had had enough of war—considering all these things, a clever job of destruction has been done.

The attack on the Potsdam Agreement has followed two main lines. The obvious approach was simply to violate commitments and stall on sending equipment out of Germany. As has been shown before, this has been done with complete success by the British and nearly as successfully by the United States. Along with outright stalling has gone a long-range approach: a systematic campaign to weaken the ideas which lie behind Potsdam. And this campaign, too, is well launched.

The long-range campaign starts with the idea that Germany was the economic center of Europe before the war. It was and still is highly industrialized. It is densely populated. It is not a big food producer. If German industry is cut down the German people will starve and all of Western Europe will collapse.

These ideas have been repeated so often that they begin almost to be taken for granted. They represent a final triumph for the Nazi master of propaganda, Goebbels. Take the point of Germany's heavy dependence on food imports. It is true that Germany does not have the most fertile land in the world. But even before the war Germany was nearly eighty-five per cent self-sufficient in food production and during the war, with millions of slave laborers from Central and Eastern Europe working on the land, she became nearly ninety per cent self-sufficient. And this was done without real mechaniza-

tion of farming. France is thought of as an agricultural country; yet, according to German figures, France before the war had about the same degree of self-sufficiency as Germany—around eighty-three per cent.

It is true that Germany is densely populated. Yet it is no more densely settled than, for example, Italy. Italy has two-thirds Germany's area and also two-thirds Germany's population. But Italy has barely fifteen per cent of Germany's steel-making capacity, and steel is the measure of heavy industry. If Germany could not survive without its present heavy industry, then Italy would have passed out of existence long ago.

Consider a whole group of European countries: Austria, Belgium, Czechoslovakia, France, Hungary, Italy, Luxembourg, Poland, Roumania, Spain, Sweden, and Yugoslavia. For all twelve countries combined, average steel production between 1930 and 1939 came to about seventeen and one-half million tons a year. The combined population of the countries was two hundred and seventy-six millions. Germany, with a population of sixty-six million, would have had an average steel production of only a little more than four million tons per year if she were no more industrialized than the average of the surrounding nations. Actually, at the peak of the Nazi war effort, German steel production had risen to more than twenty million tons per year; a great part of the excess capacity was entirely for war production.

In view of the average capacity of the other European countries, early estimates by Americans of the amount which should be retained in Germany ran between three and five million tons per year. As late as October, 1945, Edwin Pauley, Commissioner for Reparations, remarked in Europe that 3.2 million tons of steel had met all of Germany's needs in the depression year 1932. But by the time the four occupying powers had gotten down to deciding the German level of industry (on which reparations, if any, would have to be

based), the official American figure had been pushed up to eight million tons or more. This neat trick was accomplished by General Draper and his Standard of Living Board under Dr. C. B. Hoover.

The Russian estimate of how much steel capacity the Germans should have, remained at 4.5 million tons per year. The British had started talking about a figure of fourteen million tons annual capacity—just about equal to the entire remaining capacity in the Ruhr—and by way of compromise came down to nine million. The figure finally agreed to was seven and one-half million tons, with the added hope that actual production in any one year would not rise above six million tons.

The heart of German steel production is in the grimy blast furnaces and converters of the Ruhr, in the British Zone. The British have not moved an inch on reparations and there is not the slightest indication—aside from signatures on international agreements—that they intend to. Even if there should happen to be a violent shift in British policy, however, German steel-making capacity at 7.5 million tons per year would still run fifty to one hundred per cent above the average for neighboring countries.

Steel set the pattern for the other industries, when the German level of industry was set. In every case, the Russians argued for less capacity, the British and Americans for more.

Consider the case of synthetic textiles. Here was an industry, enormously swollen during the war through the good services of IG Farben, convertible to the production of explosives. The British proposed that the Germans be left with a capacity of 250,000 tons per year which was just four and one-half times as much capacity as they had before the war. The figure finally agreed on was 185,000 tons per year, which was still more than three times the pre-war German output.

Or consider the production of dyestuffs. IG Farben demonstrated over a period of forty years the intimate connection between dye-making and the development of new techniques for war. Even so the American proposal was for an annual production as high as sixty thousand tons, as against the French and Russian argument for no more than twenty-five thousand tons. The compromise was for a dyestuff production of thirty-six thousand tons yearly.

In the case of cement the Anglo-American position was for no limit at all on present capacity; this would come to about fourteen and one-half million tons of cement per year. Certainly there is an enormous amount of construction to be done in Germany. This is also true of the whole of Europe in a broad swath from Normandy to Stalingrad. Germany's present cement capacity is much above its needs and would leave the surrounding countries far behind in construction. Both American and Soviet representatives agreed in calculating that the Germans actually need no more than six million tons of cement per year. The figure finally settled on was eight million tons.

The reparations system drawn up at Potsdam made sense. By concentrating on the transfer of machinery instead of payments in cash or goods, the Potsdam system would simply shift the balance of industrial power from the world center of fascism to the countries which suffered the most from German aggression.

That is, the Potsdam system *would* do this—if applied. But the whole reparations program was badly hurt by forcing up the level of industry to be allowed in Germany. And as long as there is still no machinery moving out of western Germany all the debate on the subject will be merely idle talk and political gossip. If the stalemate continues, it is more than likely that the Potsdam plan for reparations will be dropped by consent of all the Allied powers. If then the Big Four agree to try to take reparations out of current pro-

duction, the way will be clear for a return to the folly of Versailles.

Reparations are the key to the control of Germany and its supreme war-producer, IG Farben. Relations with Russia are the key to reparations. In the heat of strife between the Western Powers and the Soviet Union, the work of the military occupation of Germany is paralyzed—and IG Farben gains strength once more.

14
Brush Fire

Between the ending of the war and the beginning of Allied occupation there was a new government in Germany. For a few days Grand Admiral Doenitz took over as successor to Hitler. Doenitz did not last long, but he had time enough to make several speeches over the Flensburg radio. Part of his proclamation announcing the end of the war to the German people is worth quoting:

"On May 8 at 2300 hours the arms will be silent.

"German soldiers, veterans of countless battles, are now treading the bitter path to captivity, and thereby making the last sacrifice for the life of our women and children, and for the future of our nation.

"We bow to all who have fallen. I have pledged myself to the German people that in the coming times of want I will help courageous women and children, as far as I humanly can, to alleviate their conditions. Whether this will be possible I do not know.

"We must face facts squarely. The unity of state and party does not exist any more. The party has left the scene of its activities. . .

" . . . All of us have to face a difficult path. We have to walk it with dignity, courage and discipline which those demand of us, who sacrificed their all for us. We must walk it by making the greatest efforts to create a firm basis for our future lives. . ."

One of the simpler lessons of history is that people often mean what they say. It seemed unlikely, but Hitler meant it when he said he would have the world for Germany or die trying.

Doenitz's proclamation sounds very much as if he meant it, too. There is a note of scorn for the Nazi Party which "left the scene of its activities." But there is no scorn for the German Army. It was a motley crowd of little boys and elderly men which went down "the bitter path to captivity" when the war was over but Doenitz covers its wounds with the cloak of glory. There is no admission of error, no call to a different way of life. Honor your dead, Doenitz says. Preserve your discipline. Build a firm base for the future.

It is easy to laugh at the beaten Hitler. There are few Germans still alive who would laugh at the words of a Grand Admiral Doenitz.

The universities began to open again in the U. S. Zone of Occupation in Germany. The young men who survived the finish of their Wehrmacht went back to school. They wore their army boots, parts of their uniforms. They sat in the cold, dreary, sometimes bomb-scarred classrooms, and listened and waited. They were young soldiers out of work.

Pastor Niemoeller went to speak to the boys in the school at Erlangen. The Pastor was once a U-Boat commander himself. In earlier years he had spoken for Hitler. Even at the end of World War II he had said that a patriotic German had to fight in any war his country started.

But now he was telling the veteran-students of Erlangen his latest thoughts about World War II. It was a bad war,

he said. The whole German nation was stained with war guilt. They must all share in the war guilt.

First there was loud coughing in the room. Then there was the sound of army boots shuffling and scraping the floor, shuffling louder and louder, till the words of Pastor Niemoeller were drowned out.

The last ten years of this man's life had been spent in three concentration camps. At the end he was shipped to Dachau. By virtue of survival he had become a sort of unofficial senior political prisoner.

He was a remarkable man. To survive ten years in the concentration camps was in itself in the nature of a miracle. It required tremendous endurance, great luck, and an unshakeable desire to live. Each morning for ten years he had faced the prospect of a possible violent death by nightfall. Almost literally, one had only to catch the eye of a guard in the wrong way.

And then there came a day when he heard shots and confused shouting and someone cried, "The Americans are here." That was a day he would never forget or ever entirely remember.

He started home and news of his coming went ahead of him. His home was in a small industrial suburb across the river from Frankfurt-on-the-Main. In his district the streets were narrow and twisting and cobble-stoned, the houses were small and cramped together. There were still people there who remembered him. They planned a big homecoming party and decorated the street with placards and flowers. They collected whatever food they had for a banquet.

Unfortunately, it was hard to send messages across Germany in those days. He stayed at Dachau an extra day to help distribute food to the liberated prisoners, and arrived home a day too late for his own celebration. The placards were down, the flowers wilted.

So the people came to see him, to wish him well and talk about the future, to see how he looked, to congratulate his wife and the daughter who had grown from eight to eighteen while he was away. For three days he allowed himself this kind of vacation, three days after the ten years. For those few days he held open house, he visited with his relatives, he tried to reach back to his wife across the gap of years. And then he went to work.

He was given a job in the provisional German government which was taking shape in that region under the military authority. And now there were some Americans who came to visit him, to see what an anti-Nazi German had to say.

One American came to see him in the evening. The dark street was so narrow and twisting that the American had difficulty maneuvering through it in his jeep. They spent a pleasant time together. The American asked a few questions trying to catch the meaning of ten years in concentration camps across the barrier of languages. The man from Dachau answered readily, turning often to his wife for words and then smiling always when his eyes found hers again.

The American asked questions about a program for the redemption of Germany. The man from Dachau represented some groups of Germans. Did he think it would be possible, for example, to root out all the Nazi and remove them from important posts?

"Yes," the man from Dachau said, "of course. It is easy to find the Nazis. Just ask me and my friends. But what are you going to do about it?"

What about the big cartels, the American asked. Would it be possible to break their grip on German economic life?

"Yes, definitely. Difficult, but possible and necessary." The German grinned as if to indicate that from here on all problems could be solved. "But all we can do is support such a program. There will be many, very many, who will oppose it. What will you do?"

The Amreican asked about democracy in general. Would it be possible to build a new, free and democratic state in Germany?

The man from Dachau answered: "Of course, of course. We must. But you are the Military Government. Tell me, please, what are *you* going to do about it?"

The American investigators were shown around the mustard gas plant by the German engineer, Dr. Roell. Dr. Roell was a lucky man. He had a good record with IG Farben, which had operated the plant for the German government. He had never joined the Nazi Party. And now he was back at work again, operating under license from the U. S. Military Government.

The plant was hidden deep in a forest. Its units were scattered and camouflaged, connected by miles of forest-green pipes. The equipment was new, nothing had been touched by the war. Dr. Roell took pleasure in showing off the efficiency of his lay-out.

Was the plant now in operation?

Oh yes, certainly, it made large quantities of anti-freeze, for automobile radiators.

Had they ever made anti-freeze before?

But, of course. It was simply ethylene di-glycol. In Germany it was known as "Glyssantine," in America "Prestone" —the same thing. Most of the plant was set up to produce anti-freeze; only one last operation was required to convert it into mustard gas.

Did they have any trouble getting permission to operate from the American officers?

Not at all. Dr. Roell wanted to make sure there would be no unpleasant misunderstanding. The situation was quite encouraging. If only they could get more coal. Did the gentlemen think that could be arranged?

Could the mustard gas plant produce anything besides anti-freeze?

Of course. In this plant everything started from limestone

and coal. What was wanted? Dr. Roell produced a report with a long and varied list of products, production of which was already planned and approved.

Would it be easy to produce mustard gas again?

Yes. Dr. Roell asked: "Are you gentlemen interested in that—now?"

A dozen of the most important executives of IG Farben were kept in the old city jail in Frankfurt, guarded by American soldiers. For all of them it was an unusual experience. They reacted in different ways.

Dr. Max Ilgner quickly demonstrated his talents for organization; his G.I. jailers put him in charge of the details which cleaned out the cell block. Dr. Gunther Frank-Fahle busied himself with a journal, in a calm and objective manner. Dr. Georg von Schnitzler did not take it so well.

Dr. von Schnitzler had been the head of the IG Commercial committee. He had represented IG as an ambassador-at-large in important international functions. It was he who had received the surrender of the French chemical industry.

When first arrested Dr. von Schnitzler had given the impression of constantly looking over his shoulder for a firing squad. He was frightened. The story from other IG men was that most of his drive came from a shrewd and ambitious wife. After a few weeks in jail he seemed old and broken. His clothes looked bad. Some days he forgot to shave.

After the investigation of IG Farben had continued for some time an American officer decided that the IG executives no longer need be kept in jail. They were released.

Later, the same day, Dr. von Schnitzler was seen entering the Carlton Hotel, taken over during the occupation as quarters for American officers. His appearance was totally changed. Once more he looked like an ambassador-at-large. His manner was smooth, his bearing impressive. As he walked through the lobby of the Carlton, the news could be heard spreading among the German help in a rustling whisper. The

manager greeted Dr. von Schnitzler like royalty. There were bowings and scrapings all over the lobby. Was there anything he wanted? Was there anything which could be done? Rubble still lined the streets of Frankfurt but it looked as if the good old days might be coming back.

The next day the decision was reversed by another American official. Most of the released executives were ordered picked up again. Dr. von Schnitzler was among them. He went back to jail, started to look seedy again, and the clerks in the Hotel Carlton waited a little longer for the good old days to come again.

Half of the task of destroying Nazism was accomplished by Allied arms on the battlefield. The other half of the job was planned at Potsdam. More than a year after agreement was reached by the Big Three at Potsdam, the second half of the job still remains to be done.

The forces which made Germany a war-maker are still active. If the particular half-mad philosophy of Hitler and Rosenberg is no longer heard very much in Germany, this only makes the danger greater. It is true that Germany can not immediately launch armies against the whole world. Let no one take comfort from this. The Germans can still throw a heavy weight toward the side of any new type of fascism which develops. There remain brush fires in Germany today which tomorrow can turn into a raging inferno to engulf the world.

APPENDIX

APPENDIX 1
Some Facts About Cartels

Throughout this book the term "cartel" is frequently used. The story of IG Farben is, of course, as good a demonstration as possible of cartels in operation. Some of the more general background of cartels is given in the appendix which follows.

Definitions of Cartels

Perhaps the simplest explanation of cartels was given by Adam Smith more than a century and a half ago. Smith wrote, "People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices."

The cartel is simply the most modern in a series of business devices aimed to control trade and production, to stifle competition, and to keep prices high. It takes the form of an agreement between supposedly independent businesses and it can cover any thing from setting of production quotas to sharing of trademarks to establishing of joint sales offices to splitting of profits and sharing of patents and industrial methods.

The dozens of different kinds of cartel all add up to the same thing: competitors in a limited market, usually large organizations and often dominant monopolies in several countries, agree to share the market or at least to stay within assigned areas. The terms of agreement may be highly complex, drawn with the formality of diplomatic protocol, but the essential features are sharing of market and control of prices.

The cartel of course runs counter to all the precepts of free trade. But it can hardly be said that there has been a serious fight between the opposing philosophies of free trade and cartelization. Free trade is an idea so much and so long talked about that it has acquired a reality of its own—without ever having been realized for any great length of time in any dominant part of the world's economy.

At most, *laissez faire* described a policy to the best interests of one group

in one country at a particular time. So long as British industry had a comfortable lead over producers anywhere else, it was clearly to the interest of the manufacturers and traders of England to be able to sell their wares wherever English ships could carry them.

But what a brief period in the world's history was covered by that phase of British free trade. Throughout the Western World the breakup of feudalism —in which free trade was impossible—led to mercantilist imperialism in which the self-contained economic spheres or units were merely greatly enlarged and more efficiently operated. If one looks for a formal closing date, it might be said that the period of the old commercial or mercantilist empires ended with the triumph of British over French empire-building in 1763. But even in England itself, it was not until the first third of the nineteenth century that the traders and manufacturers could force repeal of the tariff on wheat against the opposition of the landed aristocracy. And by the last third of the nineteenth century a new age of political imperialism and economic monopolies was getting well under way. The cartel movement in Germany is generally held to have begun as early as 1873. France took Tunis in 1881 and in thirty years European countries had taken over all of Africa except for Liberia and Abyssinia.

Even as a theory, free trade was more or less the sole property of English business of the nineteenth century to be used as a weapon against foreign competitors who hid behind tariff walls and domestically, against their own native version of a farm bloc. Significantly, the Germans never produced a school of economic theorists who preached the doctrines of *laissez faire*. The infant industries of the United States, fighting for a foothold against the established workshops of Great Britain throughout the nineteenth century, needed no theoretical excuse to seek shelter behind the protection of tariffs.

Today there is hardly even a theoretical fight over free trade. The old terms are used but in different connections. The idea of "freedom" for trade and business enterprises generally is used to mean freedom from government constraint, freedom therefore to organize in restraint of trade. The idea of "self-government in industry" was developed in the period before World War II to mean nothing less than the right to organize industry-wide cartels. The old idea of the right of the individual trader to enter any market he sees fit and to sell there at any price he chooses has become anachronistic.

The truth is that the cartel has grown up as an inevitable by-product of the whole vast economic process throughout the world in which big business organizations have become bigger and world markets have shrunk to provide bare elbow room for competing industrial giants. Along with trusts and monopolies in the economic sphere and the various forms of imperialism, including fascism on the political side, the cartel is one of the direct results of, and instruments for, concentration of control.

The evil effects of cartels are all too clear in the wreckage of world war. That they must be curbed and if possible eradicated is as simple and self-evident a proposition as the notion that a world which has become host to the atom bomb should avoid war. The story of IG Farben and its dealings with its cartel partners illustrates as clearly as anything can how cartels adapt themselves to the pressures of imperialist rivalry and become in fact the vehicle through which a great war takes shape. But the solution will not be found in an attempt to turn the clock back to an economic policy of *laissez faire* which was barely able to work even when it was first proposed.

The cartel must be handled on its own terms, within the actual conditions out of which it arose. And this involves in the first place an understanding of how cartels operate, how they developed and what they did to promote war.

In testimony before the Kilgore Committee of the U. S. Senate, one of the Department of Justice experts on trusts and cartels, Corwin D. Edwards, outlined the three main ways in which cartels are set up.

Some cartels are set up simply as associations, resembling as Edwards says, ". . . a national trade association which is engaged in restrictive activities . . . Such cartels may formally agree to fix prices; to limit and apportion output, sales, or exports; to allocate market territories; to redistribute profits in accordance with an agreed formula; or even to sell through a jointly maintained sales agency. . ."

A cartel of this sort is limited by how thoroughly the cartel partners control the market, and by the same token, the extent to which they have a monopoly on production. In some countries, notably the United States where the Sherman Act after half a century remains in effect, such operations of cartels are limited by law.

The association may be government sponsored. In foreign countries this is a commonplace; it can happen here, too. The language of American policy is full of tribute to the principles of free trade but even here we have cartels set up with full sanction of the law. For example, under the Webb-Pomerene Act of 1918, export associations were created with specific immunity from the Sherman Act. For our own part these might simply have been set up as a defensive measure to maintain American foreign trade in the face of intervention by foreign governments but from the foreigners' viewpoint these were plain cartels. R. Liefmann, a German cartel authority, described associations set up under the Webb-Pomerene Act as ". . . a clear case of export cartels deliberately fostered by the Government of the U. S. A. to the detriment of the European consumer."

A second major type of cartel is the patent licensing agreement. This was perhaps the most realistic and at the same time the commonest basis for international cartel-making in the period before World War II. The driving force of an economy is of course technological development. Particularly in newer industries, agreements based solely on control of prices and markets would soon break up if one partner moved far ahead with new processes. Furthermore, the patent sharing device was especially well-adapted to the German position—and as has been seen, the Germans, with IG Farben in the lead, were the prime movers in international cartel building. Because of intensive devotion to commercial science, invention was the big stick used by the German negotiators in the diplomacy of Big Business. Share the markets with us, they said in effect, or we will drive you out with new products.

The patent sharing agreement generally also calls for sharing of industrial methods, the unpatented body of special knowledge of how to do things which can be more important than the information contained in a formal patent. And it quickly spreads. An agreement between two concerns soon affects all producers. If one of the original partners enters a cartel arrangement with another organization, the terms of the first cartel must be protected and maintained. If Du Pont in the United States, for example, has a cartel agreement with IG Farben, then a deal made by Du Pont with, say, the Imperial Chemical Industries of Great Britain in the same field must be consistent with the terms of the arrangement with IG. IG, in effect, has acquired an important veto power over the operations of its partner. In this way, a few basic industrial alliances

can be quickly spread into a complex but consistent network of patent and process sharing agreements covering a major field in all the important countries of the world.

The patent sharing part of the agreement is merely a first step. The patent agreement is based on division of territory. That is, IG may grant use of certain patents to, say, Standard Oil of New Jersey, but the use of those patents is confined to certain areas, the areas agreed upon by the cartel partners. And when the world markets are split for patented products, the same split soon enough applies to other products as well.

With processes and areas shared, the problem of prices is easily handled. Artificial monopoly has been created and the cartel partners can proceed as they see fit in their own domains, secure in the understanding that competing products cannot face them to meet a challenge by lowering prices.

Still another method of cartel-making involves the setting up of combines which ". . . control international markets not by contract but by uniting competitors under a common ownership or management." In other words, competitors from two big countries may agree to go into a third country and to join hands there by operating through one, jointly owned company. Thus the U. S. Du Pont company and the British Imperial Chemical Industries operate in South American countries through the jointly owned Duperial companies. Within the United States itself Du Pont and a subsidiary of the German IG sold seed disinfectants through the jointly owned Bayer Semesan Co.

The German Cartel Movement

A German refugee in England, Ernst G. Preuss, wrote a pamphlet to prove that the real German warmakers were the rulers of heavy industry in the Ruhr and the Rhineland. He cited a document left to him by his grandfather, an owner of cotton mills in Silesia who wrote as follows on his retirement in 1884:

"May my great-grandsons when reading the contents of this envelope in fifty years time consider the authors of the enclosed speeches worthy inmates of a lunatic asylum, but not, as unfortunately they actually are, representatives of the most influential quarters in Germany. God knows why so many of my former colleagues in industry feel prompted to make use of any lunatic and crook who comes their way to propagate their unsavory aims in a most unsavoury manner, apparently without realizing, intelligent fellows as they otherwise are, that their efforts are bound to lead to internal strife and in the end to war with other nations which will not in the long run tolerate the exaggerated ambitions cherished by so many of my colleagues."

The envelope contained newspaper clippings of speeches made in the Reichstag and Prussian Diet by one Adolf Stoecker, a Lutheran minister who was a pre-Hitler ultra-nationalist, anti-Semite and pro-dictator. Stoecker had been maintained in the Reichstag by the iron and coal men of Westphalia.

During that same decade of the 1880's Lincoln Steffens, then in his mid-twenties, was a student in Germany. Steffens in his lifetime demonstrated that he was a mercilessly clear observer. Yet his attention was caught by a different aspect of German life. He wrote about the German merchants in a letter to his family:

". . . I have begun my music course. . . It is delightful and educational in the truest sense. . . Beer is served and everybody drinks it. . . It is a beautiful sight to see the German carry his home around with him and never partake of pleasure without sharing it with those at home.

"The German merchant takes a different view of life from an American. He thinks the American very foolish to go on all his life working hard to pile up money which he does not get the pleasure out of. . . The German merchant has a finer classical training and education, which makes him need the society of men (not dunces) and women, books, pictures, art, and music. These are cheap. But he needs leisure for enjoyment of these things, and it is pleasing to see a banker after dinner at night sit down and think about a few paintings and then go back to business."

Here, then, are the two views of Germany—the apparently irreconcilable views of a country which on a base of well advertised culture and good cheer built a structure of scientific barbarism.

As history has shown, both views of Germany and German businessmen were correct. Both were visible sixty years ago. In spite of apparent contradiction, both came from the same sources in the development of the German nation.

Germany was the late-comer in the industrial arena. When England and France emerged from the Middle Ages as full-fledged nations, what is now Germany was still a patchwork of feudal principalities. During the seventeenth century while commercial empires were being built by the other nations on the Atlantic coast of Europe, the weak and divided German states were a battleground. The industrial revolution was well under way and the Napoleonic wars over before the first signs of German economic unity came with the formation of the customs union in 1819.

The German merchant of the nineteenth century grew up in a world which had already been staked out by the traders of other nations. He grew up in a country which had discovered nationalism late and achieved it finally only by going to war three times in the years between 1864 and 1870. The nationalism which took so long in coming was doubly strong when it arrived.

In the commercial battle against the entrenched economies, the Germans had to compete by all means, fair and foul. There could be no question of coasting on their gains. Any idea of peaceful settlement of claims, preserving the *status quo,* could only leave them where they had been, on the outside looking hungrily in. German economic policy therefore was eternally aggressive and strongly nationalistic.

But while the German businessman started out on the big-time of world competition as a poor outsider, he nevertheless had important advantages. As the Johnnie-come-lately he could profit by the experience of those who went before him. Business pioneering is expensive. The first form of an invention is rarely the most efficient. Germans starting industrial production could pick what appeared to be the best equipment and methods. They were not committed to something out of date by virtue of large investments in obsolete plants.

Thorstein Veblen described the advantages of the German position in the following way:

"The country being at the same time . . . not committed to antiquated sites and routes for its industrial plant; the men who exercised the discretion were free to choose, with an eye single to the mechanical expediency of locations for the pursuit of industry. Having no obsolescent equipment and no out-of-date trade connections to cloud the issue, they were also free to take over the processes of the new industry at their best and highest efficiency, rather than content themselves with compromises between the best equipment known and what used to be the best a few years or a few decades ago. So also in the financiering of the new ventures. . ."

Even the culture which tourists found so pleasant in the Germany of the late nineteenth century paid off in business advantages. The great universities of Germany were hoary with tradition. There were not many of them, by American standards. They were not, and never became, open to all the people. But the sons of prosperous merchant families went to them and acquired the best of scientific training along with beer, good music, and saber cuts. As a result, German industry acquired leaders who were scientists as well as managers, technicians as well as entrepreneurs. This advantage lasted into the period between the two world wars and was one of the secrets of German success in the big international poker game of cartel diplomacy.

The beginning of the German cartel movement took place immediately after the Franco-Prussian War. By this war the unification of Germany was completed and the stage was set for both rampant nationalism and some new tricks in aggressive business which the rest of the world had not yet seen.

In the early stages, there was no chance for Germans to set about capturing foreign markets from the comfortable business community of England. The Germans had their hands full taking care of their own domestic markets in the face of foreign competition. What was more natural than for the Germans in different industries to pool the home market, fixing prices and production quotas, to make a common front against all outsiders? The cartel grew up in a cordial atmosphere. The German monopolist on the way up was luckier than his American counterpart. He did not have to worry about a Populist movement. He had no muckrakers to contend with, no anti-trust laws to avoid. He was building greater (and more profitable) concerns for the good of the new empire.

More than fifty years later the same attitude prevailed. The German cartelist was still *the* super-patriot in a nation of super-patriots. In 1928, at a time when British and American corporations were making cartel bargains in the name of international business without regard for national interest, the German Osram Company stated:

"An international cartel has no right of existence and a German businessman has no right to become a member of such a cartel if this cartel is acting against the common interests of Germany."

By way of contrast, here is a statement made in April, 1939, by the chairman of the board of the U. S. General Motors Coporation, referring to any American firm operating abroad:

"It should attempt to attune itself to the general business of the community; make itself part of the same; . . . I believe further, that that should be its position, even if, as is likely to happen and particularly as was the case during the past few years, the management of the Corporation might not wholly agree with many things that are done in certain of these countries."

With a rapid increase in productive capacity, under pressure of a tight home market and few foreign markets, concentration of German industry moved forward in the years leading up to World War I, without opposition or interruption. The movement took two main lines: formation of cartel agreements among independent producers, first on a regional basis, and after 1900 on a nation-wide scale; and, particularly in prosperous years of industrial expansion, outright consolidation of independent companies into single combines with common ownership and management.

Some writers have made much of the differences between the two processes of cartel building and outright mergers, pointing out that in Germany the

cartels grew fastest in the years of depression when it was necessary to divide the limited market and most consolidations occurred in prosperous years when the advantages of larger scale production could be used in a booming market. Of course, there were differences. But the main purpose and the main effect were the same: Bigger and bigger sections of the economy came under control of fewer and fewer people. This was seen most clearly in the case of the German chemical industry. There the main producers were first organized into two giant cartels. Then the two were combined to make one giant cartel with division of markets, production quotas, and sharing of profits but with ownership of individual plants still independent. And finally the over-all cartel was replaced by one huge company in which all the others were swallowed up, the IG Farbenindustrie A.G.

In the United States too there was a movement for the formation of great trusts and monopolies in the closing years of the nineteenth century. But there was also a countermovement, a major popular protest against the trusts which was reflected in Congress—by the Sherman Anti-Trust Act; in the press—by the writings of the muckrakers, Tarbell, Steffens and the rest; and in executive action—by Theodore Roosevelt's trust-busting.

In Germany there was no such opposition. The recently acquired national unification was coupled with the rigid discipline of the only recently dissipated feudalism. Duty to the new state was preached as religion. To muscle into already allocated world markets required unified action: there was unified action.

The German courts from the beginning supported the cartel movement. For example, in the case of the Bavarian Kiln Association, the Supreme Court of Bavaria ruled in 1888 that it was a good and proper idea for businessmen to band together and thus aid recovery from depression and promote the national welfare. The court said: "Since the individual producers are powerless to restore the proper balance between supply and demand by limiting their own output, the only way to bring about such result is for them to combine and agree on such limitation."

A few years later, in a wood-pulp case of the 1890's, the high court of Saxony went the whole way in making a case for high prices: "When the prices of the products of an industry fall to an unreasonably low level and the profitable operation of the industry is thereby endangered or made impossible, the resulting crisis is detrimental not only to the individuals affected, but also to the national economy as a whole, and it is, therefore, to the interest of society that prices should not be constant at an unreasonably low level."

By the time of World War I, the cartels were ready to do their service for the Fatherland. A German defender of cartels, R. Liefmann, wrote: ". . . the cartels . . . were put to an extraordinary test by the [first World] War. The fact that the firms were used to such organizations and their adaptability and capacity for co-operation, proved a great blessing to the country. The assertion of our enemies that we owed this merely to our military discipline is quite untrue; it was not a case of arrangement in organizations created by the State, but of co-operation within voluntary organizations created by themselves, which merely had to be adapted to the new needs arising from the War."

The cartels were still better able to serve the Reich by the time of World War II.

Only a few hesitating gestures toward control of cartels were ever made in Germany. In 1903 the Imperial government ordered an investigation into

cartels, but the survey did not lead to action or even to scandal. A similar investigation was made in Austria in 1912. The closest approach to cartel control came in 1923. Germany had then experienced nine years of steadily—and, at the end, violently—rising prices. Since a main purpose of cartels is to prevent any *drop* in prices, the bottom seemed to be cut out from beneath the cartels.

Many reams of paper have run through the presses burdened with theoretical analysis of what happened during the great German inflation. But to the ordinary people it did not seem so difficult to understand (and perhaps in truth it was not really so difficult): almost alone of all groups in Germany the major industrialists profited by the inflation and profited handsomely. Control of monopoly acquired a new popularity.

In November of 1923, with the inflation at its final peak, a cartel law was established by decree of the German government. The law set up a cartel court with power to determine when the actions of cartels went against the public good and in such cases to invalidate contracts, but it did not call for abolition of the cartel system. Its preamble specifically disavowed such intention. It was merely designed to regulate some cartel activities, in cases where the public welfare was involved.

Even within this limited framework, the law was never effective. Cartels in Germany continued to grow in size, number, and importance. Having gained a grip on the main parts of the home economy, the German cartels moved out, and, in the period between the two world wars, became the prime movers in international cartels which took in main producers all over the world. As has been shown, the phenomenal network of cartel tie-ups created on a global scale by IG Farben was built almost entirely in the period after the cartel law was passed.

With Hitler's coming to power, the German cartel movement reached its final high point. There had been compulsory cartels in potash since 1910, in coal since 1919. Now cartels became compulsory for the whole economy. In July, 1933, the cartel court was abolished and cartels became compulsory. The State now had the power to force outsiders into "voluntary" cartels and to set up new ones. The Minister of Economics could control the size of an industry by refusing to sanction expansion. True, major cartel functions like price fixing were in the hands of government but this did not materially alter the situation: representatives of leading concerns acted as efficiently within the Nazi bureaucracy as they had on their own boards of directors. In other words, by placing their power in the hands of the State, the cartelists received it back again, doubled and tripled in strength by the scientific barbarism of the fascists. For their part, the Nazis received a war economy ready made.

Cartels Throughout Europe

In 1940, Nazi conquest insured cartelization of Europe with all controls firmly in German hands. But much more than a beginning had already been made. The assault of the German cartels in foreign trade during the 1920's and 30's was too severe to be withstood by individual concerns. Cartelization had spread rapidly throughout all of Western Europe even in peacetime.

In Austria the progress of big combinations in industry paralleled that in Germany though on a smaller scale. Belgium too was closely webbed with cartels and there too the links with German cartels dated from before World War I. There were literally hundreds of industries bound together by cartels in all the principal countries of Europe from Norway to Greece. In Hungary there were cartels in coal, iron, chemicals, petroleum, and dozens of other

fields; in Switzerland—silk, cotton, chemicals, dairy products, watches, electricity, and others; in Italy—iron, sugar, paper, marble, textiles, chemicals; Spain, the Scandinavain countries, Bulgaria, Czechoslovakia, Poland, Greece, Roumania, Portugal—major industries in all operated through the medium of cartels on the German model.

France is a clear case of the effects of German pressure. Here there was a long tradition against collusive combination in business. The Chapellier Act of 1791 and the Penal Code of 1810 prohibited coalitions against trade. The law was modified somewhat in the 1880's but not until 1926 was a statute passed in which commercial combinations were recognized as legal. By 1935, the pressure of the German traders was so great that in retaliation a *compulsory* cartelization bill was written into the French law. The law of 1935 provided that if an employers' group covered two-thirds of all firms and three-fourths of all sales for a particular industry, and if that group had made an agreement regulating trade, the agreement could be made binding on all concerns in the industry by government decree.

The reasons for the French law of 1935 were clearly stated in an accompanying brief. It was necessary for French industry to protect itself from the risks of price cutting; it was necessary to curb "excessive" competition; and above all, it was necessary for France to protect itself against the cartels of other countries.

The French cartels set up thus, defensively, entered into binding agreements with the German cartelists. Within five years after the passage of the compulsory cartelization law it was learned that the French people might better have looked for other defenses. In six tragic weeks in 1940 all of France was over-run as the *Blitzkrieg* demonstrated what it could do when doors were opened for it by high-level treachery. Top rank cartelists as well as ossified generals were responsible for the betrayal of France. It was a peculiarly bitter twist of historical irony that the same industrial rulers of France who chose to join hands with the German cartels rather than oppose them soon found themselves faced with loss of control over their own enterprises and were swallowed up by the Germans.

The same pressure operated even in Great Britain, traditional home of *laissez faire*. Great Britain had been the one country in the world of which it could be said without qualification that freedom of the seas, freedom of trade, were profitable policies. But as world distances shrank and markets looked smaller and smaller compared with the growing capacity of factories of all the nations, Britain, too, drifted slowly out of the old free trade policy.

The change in Great Britain came slowly. Full-fledged, large scale cartels grew up alongside of individualistically operated industries. The British chemical industry closely paralleled development of the German IG Farben; organizers of the British Imperial Chemical Industries, Sir Alfred Mond and Sir Harry MacGowan, took their places with the world's leading cartelists. By March of 1939, the *Economist* of London editorialized as follows:

"An entirely novel form of industrial organization is creeping upon us unawares. We are witnessing the gradual cartelization of England."

After pointing out that for decades there had been only gradual relaxation of the principles of absolute free trade and that there had been stubbornly continued opposition to any kind of governmental interference in business affairs, the *Economist* went on to say:

"We have never in this country followed the American worship of compe-

tition to the length of enacting anti-trust legislation. But there has always been a doctrine of the common law against combinations in restraint of trade, reinforced by a general belief that such combinations tend to be anti-social in their effects. The belief has changed and the common law doctrine is in disuse. What is more, the Government, in recent years, far from reprobating the cohesive organization of industries, has encouraged it. Both steel and coal had almost to be forced to combine. . . The price that is not fixed is becoming a rarity, and the businessman's theme song has changed from Free Private Enterprise to the Self-Government of Industry."

That the *Economist* itself accepted the new principles of cartels at least with equanimity was indicated in another article:

"Few people nowadays are opposed in principle—the *Economist* is certainly not—to the cooperative adjustment of the supplies of raw materials to the demand for them at a price yielding a reasonable profit to efficient producers."

The language of cartel-building is full of such phrases as "cooperative adjustments" and "prices yielding reasonable profits."

Germany had been the pace setter in the making of cartels. England, having first set the whole pattern of industrial development, now went to the Johnnie-come-lately for guidance. The web of British cartels depended on inter-connections with the German cartels.

Cartel Appeasement

From the Treaty of Versailles to 1933, statements by German public figures were full of veiled threats about what would happen to the peace of the world if Germany were not given back her rightful place (complete with colonies). After 1933 and the coming of Hitler to power, the threats were no longer veiled.

At the same time also began the obscene spectacle of appeasement. The peak of appeasement was reached only five years later when Neville Chamberlain went by plane rather than by foot through the snow but the penance was heartfelt. He gave Hitler what he needed to bring war on the world, he sold the free Czech nation down the river into slavery, and he alighted from his airplane waving a piece of paper which represented "peace in our times."

Munich, of course, was only a high point of appeasement. The process had begun with the Anglo-German Naval Treaty of 1935 and the German military reoccupation of the Rhineland in 1936. And it was conducted by economic means fully as much as through politics. The only difference was that economic appeasement took the form of private understandings, at the level of international statescraft, among British and German cartelists.

The economic understandings did finally break out into the open. While Chamberlain was in Munich, preliminary maneuvers were going on between the two top trade associations of England and Germany, the Federation of British Industries and the Reichsgruppe Industrie. In March of 1939, delegates from the F.B.I. did their penance by going, not to Munich, but to Duesseldorf. There they conferred intensively with the delegates of the Reichsgruppe Industrie.

The German press was full of the concessions which had to be obtained if war was to be avoided. Typical was the blended tone of self-pity and truculence in an article in the *Deutsche Allgemeine Zeitung*:

". . . The manner in which this situation (Germany's economic difficulties) is regarded abroad will show which are the spirits of peace and which

the ones who desire the ruin of Europe. Those who argue that it is good that the disturbing Germans have food difficulties and wish to let them stew in their own trouble until they become politically unimportant and ready to sell their rights as a great Power and Kultur Nation for a mess of lentils—those who argue thus come in the category of war agitators and destroyers of European order."

The delegates of the Federation of British Industry showed themselves to be respecters of European order, German-style. They reached a broad understanding with the Germans which called for a series of agreements between the industries of the two nations, under government sponsorship if need be.

In a world full of discord, agreement between two parties is likely to be aimed against a third. The political pact of Munich was quite openly recognized to have been aimed eastward, against the Soviet Union. The economic pact of Duesseldorf contained provisions which could only have been aimed against the United States. Paragraph 8 of the declaration stated:

"The two organizations realize that in certain cases the advantages of agreement . . . may be nullified by competition from the industry in some other country that refuses to become a party to the agreement. In such circumstances it may be necessary for the organizations to obtain the help of their governments and the two organizations agree to collaborate in seeking that help." The United States, of course, was the only nation able to offer the kind of competition which would have sent the Federation of British Industry and the Reichsgruppe Industrie running to their governments for help.

The Duesseldorf agreement was still-born. While the preliminary negotiations were going on, there was also great activity in the offices of the High Command of the German Army. Last touchès of staff work were being done on the operation which turned the Wehrmacht loose against a Czechoslovakia which had been crippled, but supposedly defended, by the Munich agreement, The Duesseldorf meeting was held on March 15 and 16, 1939. On exactly the same days, the Wehrmacht was marching into Czechoslovakia.

Even then the Duesseldorf agreement was voided with regrets. A spokesman for the Federation of British Industry regarded the suspension as a mere postponement and described the declaration as "a valuable piece of work."

The same London *Economist* which a few weeks before had talked about co-operative adjustments of supplies of raw materials now faced up to the facts and pointed out that ". . . Of condemnation of German methods the agreement is entirely innocent. . . A number of changes in policies hitherto pursued are approved in the agreement. But without exception they are all changes not in *German* but in *British* policies. . . Instead of securing from the Germans an abandonment of the unfair methods, the British negotiators seem to have swallowed them, lock, stock and barrel." And the article winds up with as neat a summary of appeasement as has been written: "(The) substance is this: Provided Germany does not encroach on British trade preserves or reduce the profit margin of British exporting industries, Great Britain will not concern herself with what Germany does to other people's trade or by what means."

What the Cartels Did—And Why

On the eve of World War II cartels were well rooted in all the major

economic powers of the capitalist world. In most of the important, large-scale industries, the lines of cartel connection had crossed national boundaries to make up international networks.

In the chemical industry, the web of cartels dominated the production of the entire world—with IG Farben sitting at the center.

The international steel cartel followed the same pattern as in the chemical industry. The producers of Western Europe were first organized under German leadership. In 1935 the British steelmakers entered the European steel cartel. And in 1938 agreement was reached with American producers.

The main light metals, aluminum and magnesium, were also cartelized. Similarly, the main sources of rubber in the Far East were subject to rigid control both as to production and prices under cartel agreement.

The immediate effects of cartels were easily seen. Prices were kept high. A representative of the Steel Export Association of America testified before the TNEC that ". . . under the cartels the prices were good, otherwise there wouldn't be any good reason to have a cartel."

As a German business leader commented forty years ago, no one gains from low prices except the consumers. He might have added: the only people who benefit from oxygen are those who breathe.

The U. S. Department of Justice has established a clear-cut record on the way in which cartels maintained fantastic prices. The case of tungsten carbide is in point. In 1927 the price in the United States was $50 per pound. Following a cartel agreement between General Electric and Krupp, the U. S. price during the 1930's ranged between $225 and $435. In April 1942, after an indictment under the anti-trust laws, the price, as if by magic, came down again to a range of $27 to $45 per pound.

There are many other instances of prices held at sky-high levels by cartel action, but they tell only part of the story. The Assistant Attorney General, Wendell Berge, summarized some of the other cartel effects as follows:

". . . cartels . . . have been able by clandestine means to impress their sinister mark upon our economy. In mobilizing for war, we discovered almost too late, that they were responsible for shortage after shortage of vital materials. The fact is that they have retarded technological advance and the introduction of improved devices and products, whenever such developments seemed to threaten their vested interests despite the fact that thereby national security might be jeopardized. They have, indeed, obstructed and in no small measure thwarted the declared foreign policies of the American government, placing their own business interests above the public interests.

". . . In Germany, Kaiserism and later Nazism received enormous impetus, indeed decisive support, from the regimented, cartelized structure of the national economy."

Cartels also served as the perfect transmission belt for espionage. Here too the record of the Department of Justice provides a long list of cases. The American Bosch Company provided the Bosch Company of Germany with information, developed in the laboratories of the U. S. Navy and the Army Signal Corps, concerning shortwave and high frequency radio which later was the basis of communications in the German Army. For at least fifteen years, the U. S. firm of Bausch and Lomb sent to its cartel partner, the German Zeiss Company, information of the greatest importance concerning fire control instruments, range-finders, periscopes, telescopes, and the like. As for IG Farben,

its contribution to the art of espionage has already been told in more detail.

An important question to answer is: why were the Germans able to dominate the cartels they entered and twist them to their own purposes?

The German cartelists received some help on ideological grounds. Hitler promised an end to the menace of Soviet Russia; his cause was certainly popular enough with many of Germany's cartel partners. But ideologies are likely to wilt in the presence of hard cash. And the men with whom the American and British cartelists did business, the leaders of IG Farben for example or A.E.G. or Siemens-Halske or Krupp, did not look like crusaders; in fact, they looked suspiciously like any other international businessmen.

Far more important was the fact that the Germans provided technological leadership. The German industrialists started without assured markets or sales on a comfortable scale. They were always therefore on the outlook for new processes and methods which would give them an edge over established concerns of other nations. As a result, a special premium attached to German technique. The German cartelists were able to swap patents and knowledge for shares in markets.

The Germans could dominate cartels by making still other uses of their originally disadvantaged position. Tactically, they could maneuver against an adversary's established field and then, as a price for withdrawing, receive concessions in other fields. This was the basis of the first agreement between IG Farben and Standard Oil of New Jersey: it has already been shown that IG used the Bergius process for deriving fuel oils from coal as a threat against the established petroleum business, and, in return for staying out of the oil business everywhere except in Germany, exacted from Standard an agreement to stay out of the chemical business everywhere, including the United States.

Greater aggressiveness, also deriving from greater initial need and a generally faster rate of development, allowed the Germans to place themselves at the center of international business negotiations and build up combination plays. Here, too, the history of IG Farben illustrates the whole point. Working from one country to the next, IG forced the European chemical producers into a cartel bloc. Having organized a European alliance, they were able to force the British Imperial Chemical Industries into line. With the Continent and Great Britain lined up with them, IG could then finally come to terms, essentially their own terms, even with the big American producers. Here as in most of their dealings, the traders presented a solid national front to start with and, having less to look forward to in immediate returns, kept their eyes on the long range objectives. It was seen that IG Farben, for example, reinserted itself into American chemical production after World War I by offering a better than even break in profits in return for a better than even share in control of production and market.

The case of Germany illustrates as perfectly as can be the emptiness of the hope that through cartels international business affairs can be stabilized and the struggles for world markets mediated. It is hard to visualize now, but in the period between World Wars I and II a main theoretical defense of the cartel was that through it the chronic convulsions of world capitalism could be assuaged. And there were many convincing points in the argument. Big Business is indeed international. Its leaders are internationalists in a true sense. The top-flight officials of the IG who were arrested for interrogation by the U. S. occupying forces would have looked at home in better clubs and hotels in any city in the world. Many of them in fact were well known in many world

capitals. Most of them had excellent command of English and had traveled in the United States and Latin America. Those of them who had found themselves at the war's end in Berlin or eastern Germany made hurried trips to western Germany in the evident hope of finding themselves among old friends.

Yet even though international business is conducted by respectable men who meet on friendly terms on the same plane and talk the same language whatever their countries of origin, nevertheless there are lines of cleavage between them which they cannot bridge with mere contracts. If the business enterprises of different countries moved together like well matched horses in a team at an even pace, unity of action could be agreed on. But this is not the case and it can hardly be the case as long as profit is a magnet for men's productive energies.

It was demonstrated over the course of a century and a half that there were economies and therefore greater profits in production by increasingly larger units. The drive for concentration therefore proceeded mercilessly ahead. But large concentrations of invested capital also have their own peculiar vulnerabilities. Equipment becomes obsolete. Just as armies have only learned the lessons of a particular war by the time the war is over, so an industrial concern at its peak of power inevitably has developed methods far superior to the ones it is actually using. Yet it cannot adopt the new methods without taking a heavy loss through discarding the obsolete equipment. Its interest therefore is to hold fast to what it has and to resist shifts and changes with all the energy it can bring to bear.

The producer not yet at peak strength, on the other hand, is not held back by the dead weight of obsolescence. That producer can and will drive ahead, building with the improved methods and using increased efficiency to under-cut the richer and better established opponent.

The international cartel sets production quotas, divides markets, and attempts to stabilize prices, in line with an existing relationship of industrial power. That relationship does not, and cannot, stand still. And out of the shifts of the economic balance arise the explosions which break over into politics and sweep up whole nations in the path of war.

National feeling at home is a driving power which the international business operator can unleash at the critical moment to achieve a decision. This process was not invented by the Germans. What the Germans managed to do was to raise the use of aggressive nationalism as a support for general economic aggression to a new pitch of intensity, demonstrating the advantage of coming late into the game and of matching all bets and raising them.

Rather than acting as permanent mediators, then, the international cartels become the instruments through which international conflicts take shape, mature, and finally break out. For this purpose, the cartels are peculiarly well adapted. Cartels make major foreign policy for whole nations. It was through the mechanism of cartel agreements that Germany was permitted to arm while defensive preparations in England and the United States were throttled. Yet the duly chosen representatives of nations have little to say about the foreign policies which are made by cartels. The cartel-builders act as private individuals responsible only to their own boards of directors and responsible to them only for the showing of a decent profit. Cartels become in effect private governments carrying on private diplomacy. Even the language of cartel agreements reads like protocol. The people as a whole come in only when armies are needed.

There is no indication that the experience of World War II has changed the nature of cartels. Public policy is against the cartels, but then American policy has run consistently against all the forms of monopoly since the passage of the Sherman Act half a century ago, and this has not kept the cartel web out of this country.

There is a hopeful note in the series of proposals for expansion of world trade and employment prepared by experts in several U. S. government agencies and published in November, 1945, by the State Department. The document states that members of an international trade organization, under the United Nations, should act "to curb . . . restrictive practices in international trade." The nasty word "cartel" is not used, but the nature of the animal is clearly enough indicated. In the main three proposals are made: 1) the International Trade Organization should be empowered to receive complaints against cartel action, to make studies of the problem, and to recommend action; 2) member nations of the Organization should continue with their separate measures against the restrictive practices; and 3) the way is left open for any further enforcement measures which might later be agreed upon by the members of the Organization.

In short, the program as proposed is largely a statement of policy, general and hopeful, but without specific teeth.

Standing against the American government position, there is evidence of the intenion of American cartelists to continue in the old path. As was shown earlier, spokesmen for American corporations like Du Pont and Standard Oil have revealed that they intend to revive the old cartels and their connections with such erstwhile partners as IG.

To date, monopoly in America has been held in check, if at all, by popular pressure. The American people may not have been in a position to know all about the workings of cartels and other monopoly forms, but what they have known they have not liked; the Sherman Act has remained on the books and it has acted at least as a drag on the powerful tendencies toward concentration. It will take the same kind of public pressure in increasing amount to pull foreign affairs out of private hands and force them into the open where the commitments arrived at by cartelists can be passed on by the people who have to fight in wars.

APPENDIX 2
POLICY DOCUMENTS

The documents which follow laid down the principal lines of American policy for the occupation of Germany during the entire period between the ending of World War II in Europe and the signing of a formal peace treaty.

The Potsdam Agreement was public information from the moment of its signing by the Chiefs of State of Great Britain, the Soviet Union, and the United States. JCS 1067, however, when first issued by the U. S. Joint Chiefs of Staff to General Eisenhower, was classified as "Top Secret." Its provisions have never become widely known.

As can easily be seen by a quick reading, the two main policy documents—one a purely American set of instructions to an American commanding general, and the other an international agreement—are in thorough agreement. Both have been frequently disregarded in practice by the U. S. Military Government in Germany.

A.

JCS 1067

(EXCERPTS)

Directive to Commander in Chief of United States Forces of Occupation Regarding the Military Government of Germany (Issued originally in April, 1945)

1. The Purpose and Scope of this Directive:

This directive is issued to you as Commanding General of the United States forces of occupation in Germany. As such you will serve as United States member of the Control Council and will also be responsible for the administration of military government in the zone or zones assigned to the United States for

purposes of occupation and administration. It outlines the basic policies which will guide you in those two capacities after the termination of the combined command of the Supreme Commander, Allied Expeditionary Force.

This directive sets forth policies relating to Germany in the initial post-defeat period. As such it is not intended to be an ultimate statement of policies of this Government concerning the treatment of Germany in the post-war world. It is therefore essential that, during the period covered by this directive, you assure that surveys are constantly maintained of economic, industrial, financial, social and political conditions within your zone and that the results of such surveys and such other surveys as may be made in other zones are made available to your Government, through the Joint Chiefs of Staff. These surveys should be developed in such manner as to serve as a basis for determining changes in the measures of control set forth herein as well as for the progressive formulation and development of policies to promote the basic objectives of the United States. Supplemental directives will be issued to you by the Joint Chiefs of Staff as may be required.

As a member of the Control Council you will urge the adoption by the other occupying powers of the principles and policies set forth in this directive and, pending Control Council agreement, you will follow them in your zone. It is anticipated that substantially similar directives will be issued to the Commanders in Chief of the U. K., U. S. S. R. and French forces of occupation.

Part I. General and Political

2. *The Basis of Military Government:*

a. The rights, power and status of the military government in Germany are based upon the unconditional surrender or total defeat of Germany.

b. Subject to the provisions of paragraph 3 below, you are, by virtue of your position, clothed with supreme legislative, executive, and judicial authority in the areas occupied by forces under your command. This authority will be broadly construed and includes authority to take all measures deemed by you necessary, appropriate or desirable in relation to military exigencies and the objectives of a firm military government.

c. You will issue a proclamation continuing in force such proclamations, orders and instructions as may have heretofore been issued by Allied Commanders in your zone, subject to such changes as you may determine. Authorizations of action by the Supreme Commander, Allied Expeditionary Force, may be considered as applicable to you unless inconsistent with this or later directives.

3. *The Control Council and Zones of Occupation:*

a. The four Commanders-in-Chief, acting jointly, will constitute the Control Council in Germany which will be the supreme organ of control over Germany in accordance with the agreement on Control Machinery in Germany. For purposes of administration of military government, Germany has been divided into four zones of occupation.

b. The authority of the Control Council to formulate policies and procedures and administrative relationships with respect to matters affecting Germany as a whole will be paramount throughout Germany. You will carry out and support in your zone the policies agreed upon in the Control Council. In the absence of such agreed policies you will act in accordance with this and other directives of the Joint Chiefs of Staff.

c. The administration of affairs in Germany shall be directed towards the decentralization of the political and administrative structure and the development of local responsibility. To this end you will encourage autonomy in regional, local and municipal agencies of German administration. The German economic structure shall also be decentralized. The Control Council may, however, to the minimum extent required for the fulfillment of purposes set forth herein, permit centralized administration or establish central control of (*a*) essential national public services such as railroads, communications and power, (*b*) finance and foreign affairs, and (*c*) production and distribution of essential commodities.

d. The Control Council should adopt procedures to effectuate, and you will facilitate in your zone, the equitable distribution of essential commodities between the zones. In the absence of a conflicting policy of the Control Council, you may deal directly with one or more zone commanders on matters of special concern to such zones.

e. Pending the formulation in the Control Council of uniform policies and procedures with respect to inter-zonal travel and movement of civilians, no civilian shall be permitted to leave or enter your zone without your authority, and no Germans within your zone shall be permitted to leave Germany except for specific purposes approved by you.

f. The military government personnel in each zone, including those dealing with regional and local branches of the departments of any central German administrative machinery, shall be selected by authority of the Commander of that zone except that liaison officers may be furnished by the Commanders of the other three zones. The respective Commanders-in-Chief shall have exclusive jurisdiction throughout the whole of Germany over the members of the armed forces under their command and over the civilians who accompany them.

g. The Control Council should be responsible for facilitating the severance of all governmental and administrative connections between Austria and Germany and the elimination of German economic influences in Austria. Every assistance should be given to the Allied Administration in Austria in its efforts to effectuate these purposes.

4. Basic Objectives of Military Government in Germany:

a. It should be brought home to the Germans that Germany's ruthless warfare and the fanatical Nazi resistance have destroyed the German economy and made chaos and suffering inevitable and that the Germans cannot escape responsibility for what they have brought upon themselves.

b. Germany will not be occupied for the purpose of liberation but as a defeated enemy nation. Your aim is not oppression but to occupy Germany for the purpose of realizing certain important Allied objectives. In the conduct of your occupation and administration you should be just but firm and aloof. You will strongly discourage fraternization with the German officials and population.

c. The principal Allied objective is to prevent Germany from ever again becoming a threat to the peace of the world. Essential steps in the accomplishment of this objective are the elimination of Nazism and militarism in all their forms, the immediate apprehension of war criminals for punishment, the industrial disarmament and demilitarization of Germany, with continuing control over Germany's capacity to make war, and the preparation for an eventual reconstruction of German political life on a democratic basis.

d. Other Allied objectives are to enforce the program of reparations and restitution, to provide relief for the benefit of countries devastated by Nazi aggression, and to ensure that prisoners of war and displaced persons of the United Nations are cared for and repatriated.

5. Economic Controls:

a. As a member of the Control Council and as zone commander, you will be guided by the principle that controls upon the German economy may be imposed to the extent that such controls may be necessary to achieve the objectives enumerated in paragraph 4 above and also as they may be essential to protect the safety and meet the needs of the occupying forces and assure the production and maintenance of goods and services required to prevent starvation or such disease and unrest as would endanger these forces. No action will be taken in execution of the reparations program or otherwise which would tend to support basic living conditions in Germany or in your zone on a higher level than that existing in any one of the neighboring United Nations.

b. In the imposition and maintenance of such controls as may be prescribed by you or the Control Council, German authorities will to the fullest extent practicable be ordered to proclaim and assume administration of such controls. Thus it should be brought home to the German people that the responsibility for the administration of such controls and for any break-downs in those controls will rest with themselves and German authorities.

6. Denazification:

a. A Proclamation dissolving the Nazi Party, its formations, affiliated associations and supervised organizations, and all Nazi public institutions which were set up as instruments of Party domination, and prohibiting their revival in any form, should be promulgated by the Control Council. You will assure the prompt effectuation of that policy in your zone and will make every effort to prevent the reconstitution of any such organization in underground, disguised or secret form. Responsibility for continuing desirable non-political social services of dissolved Party organizations may be transferred by the Control Council to appropriate central agencies and by you to appropriate local agencies.

b. The laws purporting to establish the political structure of National Socialism and the basis of the Hitler regime and all laws, decrees and regulations which establish discriminations on grounds of race, nationality, creed or political opinions should be abrogated by the Control Council. You will render them inoperative in your zone.

c. All members of the Nazi Party who have been more than nominal participants in its activities, all active supporters of Nazism or militarism and all other persons hostile to Allied purposes will be removed and excluded from public office and from positions of importance in quasi-public and private enterprises such as (1) civic, economic and labor organizations, (2) corporations and other organizations in which the German government or subdivisions have a major financial interest, (3) industry, commerce, agriculture, and finance, (4) education, and (5) the press, publishing houses and other agencies disseminating news and propaganda. Persons are to be treated as more than nominal participants in Party activities and as active supporters of Nazism or militarism when they have (1) held office or otherwise been active at any level from local to national in the Party and its subordinate organizations, or in

organizations which further militaristic doctrines, (2) authorized or participated affirmatively in any Nazi crimes, racial persecutions or discriminations, (3) been avowed believers in Nazism or racial and militaristic creeds, or (4) voluntarily given substantial moral or material support or political assistance of any kind to the Nazi Party or Nazi officials and leaders. No such persons shall be retained in any of the categories of employment listed above because of administrative necessity, convenience or expediency.

d. Property, real and personal, owned or controlled by the Nazi Party, its formations, affiliated associations and supervised organizations, and by all persons subject to arrest under the provisions of paragraph 8, and found within your zone, will be taken under your control pending a decision by the Control Council or higher authority as to its eventual disposition.

e. All archives, monuments and museums of Nazi inception, or which are devoted to the perpetuation of German militarism, will be taken under your control and their properties held pending decision as to their disposition by the Control Council.

f. You will make special efforts to preserve from destruction and take under your control records, plans, books, documents, papers, files, and scientific, industrial and other information and data belonging to or controlled by the following:

(1) The Central German Government and its subdivisions, German military organizations, organizations engaged in military research, and such other governmental agencies as may be deemed advisable;

(2) The Nazi Party, its formations, affiliated associations and supervised organizations;

(3) All police organizations, including security and political police;

(4) Important economic organizations and industrial establishments including those controlled by the Nazi Party or its personnel;

(5) Institutes and special bureaus devoting themselves to racial, political, militaristic or similar research or propaganda.

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Part II. Economic

General Objectives and Methods of Control

16. You will assure that the German economy is administered and controlled in such a way as to accomplish the basic objectives set forth in paragraphs 4 and 5 of this Directive. Economic controls will be imposed only to the extent necessary to accomplish these objectives, provided that you will impose controls to the full extent necessary to achieve the industrial disarmament of Germany. Except as may be necessary to carry out these objectives, you will take no steps (a) looking toward the economic rehabilitation of Germany, or (b) designed to maintain or strengthen the German economy.

17. To the maximum extent possible without jeopardizing the successful execution of measures required to implement the objectives outlined in paragraphs 4 and 5 of this directive you will use German authorities and agencies and subject them to such supervision and punishment for noncompliance as is necessary to ensure that they carry out their tasks.

For this purpose you will give appropriate authority to any German agencies and administrative services you consider essential; provided, however, that you will at all times adhere strictly to the provisions of this directive regarding de-

nazification and dissolution or elimination of Nazi organizations, institutions, principles, features, and practices.

To the extent necessary you will establish administrative machinery, not dependent upon German authorities and agencies, to execute or assure the execution of the provisions of paragraphs 19, 20, 30, 31, 32, 39 and 40 and any other measures necessary to an accomplishment of your industrial disarmament objectives.

18. In order to decentralize the structure and administration of the German economy to the maximum possible extent, you will

a. ensure that the action required to maintain or restore essential public utilities and industrial and agricultural activities is taken as far as possible on a local and regional basis;

b. on no account propose or approve in the Control Council the establishment of centralized administration of controls over the German economy except where such centralization of administration is clearly essential to the fulfillment of the objectives listed in paragraphs 4 and 5 of this directive. Decentralization in administration should not be permitted to interfere with attainment of the largest practicable measure of agreement on economic policies in the Control Council.

19. You will institute or assure the maintenance of such statistical records and reports as may be necessary in carrying out the objectives listed in paragraphs 4 and 5 of this directive.

20. You will initiate appropriate surveys which may assist you in achieving the objectives of the occupation. In particular you will promptly undertake surveys of supplies, equipment and resources in your zone. You will endeavor to obtain prompt agreement in the Control Council to the making of similar surveys in the other zones of occupation, and you will urge appropriate steps to coordinate the methods and results of these and other future surveys conducted in the various zones. You will keep the Control Council, United States Representative on the Reparation Commission and other appropriate authorities, currently apprised of the information obtained by means of intermediate reports or otherwise.

German Standard of Living

21. You will estimate requirements of supplies necessary to prevent starvation or widespread disease or such civil unrest as would endanger the occupying forces. Such estimates will be based upon a program whereby the Germans are made responsible for providing for themselves, out of their own work and resources. You will take all practicable economic and police measures to assure that German resources are fully utilized and consumption held to the minimum in order that imports may be strictly limited and that surpluses may be made available for the occupying forces and displaced persons and United Nations prisoners of war, and for reparation. You will take no action that would tend to support basic living standards in Germany on a higher level than that existing in any one of the neighboring United Nations and you will take appropriate measures to ensure that basic living standards of the German people are not higher than those existing in any one of the neighboring United Nations when such measures will contribute to raising the standards of any such nation.

22. You will urge upon the Control Council that uniform ration scales be applied throughout Germany, that essential items be distributed equitably

among the zones, that net surpluses be made available for export to Allied countries, and that imports be limited to the net deficits of Germany as a whole.

Labor, Health, and Social Insurance

23. You will permit the self-organization of employees along democratic lines, subject to such safeguards as may be necessary to prevent the perpetuation of Nazi or militarist influence under any guise or the continuation of any group hostile to the objectives and operations of the occupying forces.

24. You will permit free collective bargaining between employees and employers regarding wage, hour and working conditions and the establishment of machinery for the settlement of industrial disputes. Collective bargaining shall be subject to such wage, hour and other controls, if any, as may be instituted or revived by your direction.

25. Subject to the provisions of paragraph 48 of this directive you are authorized to direct German authorities to maintain or reestablish nondiscriminatory systems of social insurance and poor relief.

26. You are authorized to direct the German authorities to maintain or reestablish such health services and facilities as may be available to them.

Agriculture, Industry and Internal Commerce

27. You will require the Germans to use all means at their disposal to maximize agricultural output and to establish as rapidly as possible effective machinery for the collection and distribution of agricultural output.

28. You will direct the German authorities to utilize large-landed estates and public lands in a manner which will facilitate the accommodation and settlement of Germans and others or increase agricultural output.

29. You will protect from destruction by the Germans, and maintain for such disposition as is determined by this and other directives or by the Control Council, all plants, equipment, patents and other property, and all books and records of large German industrial companies and trade and research associations that have been essential to the German war effort or the German economy. You will pay particular attention to research and experimental establishments of such concerns.

30. In order to disarm Germany, the Control Council should

a. prevent the production, acquisition by importation or otherwise, and development of all arms, ammunition and implements of war, as well as all types of aircraft, and all parts, components and ingredients specially designed or produced for incorporation therein;

b. prevent the production of merchant ships, synthetic rubber and oil, aluminum and magnesium and any other products and equipment on which you will subsequently receive instructions;

c. seize and safeguard all facilities used in the production of any of the items mentioned in this paragraph and dispose of them as follows:

(1) remove all those required for reparation;

(2) destroy all those not transferred for reparation if they are especially adapted to the production of the items specified in this paragraph and are not of a type generally used in industries permitted to the Germans (cases of doubt to be resolved in favor of destruction);

(3) hold the balance for disposal in accordance with instructions which will be sent to you.

Pending agreement in the Control Council you will take these measures in your own zone. You will not postpone enforcement of the prohibitions contained in subparagraphs *a* and *b* and the instructions in subparagraph *c* without specific approval of your government through the Joint Chiefs of Staff except that, in your discretion, you may permit the production of synthetic rubber and oil, aluminum and magnesium, to the minimum extent necessary to meet the purposes stated in paragraphs 4 and 5 of the directive pending action by the Joint Chiefs of Staff upon such recommendation for postponement as you may make.

31. As an additional measure of disarmament, the Control Council should

a. prohibit initially all research activities and close all laboratories, research institutions and similar technical organizations except those considered necessary to the protection of public health;

b. abolish all those laboratories and related institutions whose work has been connected with the building of the German war machine, safeguard initially such laboratories and detain such personnel as are of interest to your technological investigations, and thereafter remove or destroy their equipment;

c. permit the resumption of scientific research in specific cases, only after careful investigation has established that the contemplated research will in no way contribute to Germany's future war potential and only under appropriate regulations which (1) define the specific types of research permitted, (2) exclude from further research activity any persons who previously held key positions in German war research, (3) provide for frequent inspection, (4) require free disclosure of the results of the research and (5) impose severe penalties, including permanent closing of the offending institution, whenever the regulations are violated.

Pending agreement in the Control Council you will adopt such measures in your own zone.

32. Pending final Allied agreements on reparation and on control or elimination of German industries that can be utilized for war production, the Control Council should

a. prohibit and prevent production of iron and steel, chemicals, nonferrous metals (excluding aluminum and magnesium), machine tools, radio and electrical equipment, automotive vehicles, heavy machinery and important parts thereof, except for the purposes stated in paragraphs 4 and 5 of this directive;

b. prohibit and prevent rehabilitation of plant and equipment in such industries except for the purposes stated in paragraphs 4 and 5 of this directive; and

c. safeguard plant and equipment in such industries for transfer on reparation account.

Pending agreement in the Control Council, you will put such measures into effect in your own zone as soon as you have had an opportunity to review and determine production necessary for the purposes stated in paragraphs 4 and 5 of this directive.

33. The Control Council should adopt a policy permitting the conversion of facilities other than those mentioned in paragraphs 30 and 32 to the production of light consumer goods, provided that such conversion does not prejudice the subsequent removal of plant and equipment on reparation account and does not require any imports beyond those necessary for the purposes specified in

paragraphs 4 and 5 of this directive. Pending agreement in the Control Council, you may permit such conversion in your zone.

34. Subject to the provisions of paragraphs 30 and 32, the Control Council should assure that all feasible measures are taken to facilitate, to the minimum extent necessary for the purposes outlined in paragraphs 4 and 5 of this directive

a. repairs to and restoration of essential transportation services and public utilities;

b. emergency repair and construction of the minimum shelter required for the civilian population;

c. production of coal and any other goods and services (excluding goods specified in paragraphs 30 and 32 unless measures to facilitate production are specifically approved by this Government through the Joint Chiefs of Staff) required for the purposes outlined in paragraphs 4 and 5 of this directive.

You will assure that such measures are taken in your own zone pending agreement in the Control Council.

35. In your capacity as zone commander and as member of the Control Council you will take steps to provide for the equitable interzonal distribution and the movement of goods and services essential to the purposes set forth in paragraphs 4 and 5 of this directive.

36. You will prohibit all cartels or other private business arrangements and cartel-like organizations, including those of a public or quasi-public character such as the *Wirtschaftsgruppen* providing for the regulation of marketing conditions, including production, prices, exclusive exchange of technical information and processes, and allocation of sales territories. Such necessary public functions as have been discharged by these organizations shall be absorbed as rapidly as possible by approved public agencies.

37. It is the policy of your government to effect a dispersion of the ownership and control of German industry. To assist in carrying out this policy you will make a survey of combines and pools, mergers, holding companies and interlocking directorates and communicate the results, together with recommendations, to your government through the Joint Chiefs of Staff. You will endeavor to obtain agreement in the Control Council to the making of this survey in the other zones of occupation and you will urge the coordination of the methods and results of this survey in the various zones.

38. With due regard to paragraph 4 *a*, the Control Council should adopt such policies as are clearly necessary to prevent or restrain inflation of a character or dimension which would definitely endanger accomplishment of the objectives of the occupation. The Control Council, in particular, should direct and empower German authorities to maintain or establish controls over prices and wages and to take the fiscal and financial measures necessary to this end. Pending agreement in the Control Council you will assure that such measures as you consider necessary are taken in your own zone. Prevention or restraint of inflation shall not constitute an additional ground for limiting removal, destruction or curtailment of productive facilities in fulfillment of the program for reparation, demilitarization and industrial disarmament.

Power, Transportation, and Communications

39. Both as member of the Control Council and zone commander you will take appropriate steps to ensure that

a. power, transportation and communications facilities are directed in such

a way as to carry out the objectives outlined in paragraphs 4 and 5 of this directive;

b. Germans are prohibited and prevented from producing, maintaining or operating all types of aircraft.

You will determine the degree to which centralized control and administration of power, transportation and communications is clearly necessary for the objectives stated in paragraphs 4 and 5 and urge the establishment of this degree of centralized control and administration by the Control Council.

Foreign Trade and Reparation

40. The Control Council should establish centralized control over all trade in goods and services with foreign countries. Pending agreement in the Control Council you will impose appropriate controls in your own zone.

41. Both as member of the Control Council and as zone commander you will take appropriate steps to ensure that

a. the foreign trade controls are designed to carry out the objectives stated in paragraphs 4 and 5 of this directive;

b. imports which are permitted and furnished to Germany are confined to those unavoidably necessary to the objectives stated in paragraphs 4 and 5;

c. exports to countries other than the United Nations are prohibited unless specifically authorized by the Allied governments.

42. Both as member of the Control Council and as zone commander you will adopt a policy which would forbid German firms to participate in international cartels or other restrictive contracts and arrangements and order the prompt termination of all existing German participations in such cartels, contracts and arrangements.

43. You will carry out in your zone such programs of reparation and restitution as are embodied in Allied agreements and you will seek agreement in the Control Council on any policies and measures which it may be necessary to apply throughout Germany in order to ensure the execution of such programs.

Part III. Financial

44. You will make full application in the financial field of the principles stated elsewhere in this directive and you will endeavor to have the Control Council adopt uniform financial policies necessary to carry out the purposes stated in paragraphs 4 and 5 of this directive. You will take no steps designed to maintain, strengthen or operate the German financial structure except in so far as may be necessary for the purposes specified in this directive.

45. The Control Council should regulate and control to the extent required for the purposes set forth in paragraphs 4 and 5 the issue and volume of currency and the extension of credit in Germany and in accordance with the following principles:

a. United States forces and other Allied forces will use Allied Military marks and Reichsmark currency or coins in their possession. Allied Military marks and Reichsmark currency and coin now in circulation in Germany will be legal tender without distinction and will be interchangeable at the rate of 1 Allied Military mark for 1 Reichsmark. Reichskreditkassenscheine and other German military currency will not be legal tender in Germany.

b. The Reichsbank, the Rentenbank or any other bank or agency may be permitted or required to issue bank notes and currency which will be legal

tender; without such authorization no German governmental or private bank or agency will be permitted to issue bank notes or currency.

c. The German authorities may be required to make available Reichsmark currency or credits free of cost and in amounts sufficient to meet all the expenses of the forces of occupation, including the cost of Allied Military Government and including to the extent that compensation is made therefor, the cost of such private property as may be requisitioned, seized, or otherwise acquired, by Allied authorities for reparations or restitution purposes.

Pending agreement in the Control Council you will follow these policies in your own zone.

You will receive separate instructions relative to the currency which you will use in the event that for any reason adequate supplies of Allied Military marks and Reichsmarks are not available, or if the use of such currency is found undesirable.

You will not announce or establish in your zone, until receipt of further instructions, any general rate of exchange between the Reichsmark on the one hand and the U. S. dollar and other currencies on the other. However, a rate of exchange to be used exclusively for pay of troops and military accounting purposes in your zone will be communicated separately to you.

46. Subject to any agreed policies of the Control Council, you are authorized to take the following steps and to put into effect such further financial measures as you may deem necessary to accomplish the purposes of your occupation:

a. To prohibit, or to prescribe regulations regarding transfer or other dealings in private or public securities or real estate or other property.

b. To close banks, but only for a period long enough for you to introduce satisfactory control, to remove Nazi and other undesirable personnel, and to issue instructions for the determination of accounts to be blocked under subparagraph 48 *e* below.

c. To close stock exchanges, insurance companies, and similar financial institutions for such periods as you deem appropriate.

d. To establish a general or limited moratorium or moratoria only to the extent clearly necessary to carry out the objectives stated in paragraphs 4 and 5 of this directive.

47. Resumption of partial or complete service on the internal public debt at the earliest feasible date is deemed desirable. The Control Council should decide the time and manner of such resumption.

48. Subject to any agreed policies of the Control Council,

a. You will prohibit:

(1) the payment of all military pensions, or emoluments or benefits, except compensation for physical disability limiting the recipient's ability to work, at rates which are no higher than the lowest of those for comparable physical disability arising from non-military causes.

(2) the payment of all public or private pensions or other emoluments or benefits granted or conferred:

(a) By reason of membership in or services to the former Nazi Party, its formations, affiliated associations or supervised organizations,

(b) to any person who has been removed from an office or position in accordance with paragraph 6, and

(c) to any person arrested and detained in accordance with paragraph 8 during the term of his arrest, or permanently, in case of his subsequent conviction.

b. You will take such action as may be necessary to ensure that all laws and practices relating to taxation or other fields of finance, which discriminate for or against any persons because of race, nationality, creed or political opinion, will be amended, suspended, or abrogated to the extent necessary to eliminate such discrimination.

c. You will hold the German authorities responsible for taking such measures in the field of taxation and other fields of public finance, including restoration of the tax system and maintenance of tax revenues, as will further the accomplishment of the objectives stated in paragraphs 4 and 5.

d. You will exercise general supervision over German public expenditures in order to ensure that they are consistent with the objectives stated in paragraphs 4 and 5.

e. You will impound or block all gold, silver, currencies, securities, accounts in financial institutions, credits, valuable papers, and all other assets falling within the following categories:

(1) Property owned or controlled directly or indirectly, in whole or in part, by any of the following:

(a) The German Reich, or any of the Länder, Gaue or provinces, any Kreis, Municipality or other similar local subdivision; or any agency or instrumentality of any of them including all utilities, undertakings, public corporations or monopolies under the control of any of the above;

(b) Governments, nationals or residents of other nations, including those of territories occupied by them, at war with any of the United Nations at any time since 1 September 1939;

(c) The Nazi Party, its formation, affiliated associations and supervised organizations, its officials, leading members and supporters;

(d) All organizations, clubs or other associations prohibited or dissolved by military government;

(e) Absentee owners, of non-German nationality including United Nations and neutral governments and Germans outside of Germany;

(f) Any institution dedicated to public worship, charity, education or the arts and sciences which has been used by the Nazi Party to further its interests or to cloak its activities;

(g) Persons subject to arrest under provisions of paragraph 8, and all other persons specified by military government by inclusion in lists or otherwise.

(2) Property which has been the subject of transfer under duress or wrongful acts of confiscation, disposition or spoliation, whether pursuant to legislation or by procedure purporting to follow forms of law or otherwise.

(3) Works of art or cultural material of value or importance, regardless of the ownership thereof.

You will take such action as will ensure that any impounded or blocked assets will be dealt with only as permitted under licenses or other instructions which you may issue. In the case particularly of property blocked under (1) (a) above, you will proceed to adopt licensing measures which while maintaining such property under surveillance would permit its use in consonance with this directive. In the case of property blocked under (2)

above, you will institute measures for prompt restitution, in conformity with the objectives stated in paragraphs 4 and 5 and subject to appropriate safeguards to prevent the cloaking of Nazi and militaristic influence.

49. All foreign exchange transactions, including those arising out of exports and imports, shall be controlled with the aim of preventing Germany from developing a war potential and of achieving the other objectives set forth in this directive. To effectuate these purposes the Control Council should

a. Seek out and reduce to the possession and control of a special agency all German (public and private) foreign exchange and external assets of every kind and description located within or outside Germany.

b. Prohibit, except as authorized by regulation or license, all dealings in gold, silver, foreign exchange, and all foreign exchange transactions of any kind. Make available any foreign exchange proceeds of exports for payment of imports directly necessary to the accomplishment of the objectives stated in paragraphs 4 and 5 of this directive, and authorize no other outlay of foreign exchange assets except for purposes approved by the Control Council or other appropriate authority.

c. Establish effective controls with respect to all foreign exchange transactions, including:

(1) Transactions as to property between persons inside Germany and persons outside Germany;

(2) Transactions involving obligations owed by or to become due from any person in Germany to any person outside Germany; and

(3) Transactions involving the importation into or exportation from Germany of any foreign exchange asset or other form of property.

Pending agreement in the Control Council, you will take in your zone the action indicated in subparagraphs *a*, *b* and c above. Accordingly, you will in your zone reduce to the possession and control of a special agency established by you, within your Command, all German foreign exchange and external assets as provided in subparagraph *a*. You will endeavor to have similar agencies for the same purposes established in the other zones of occupation and to have them merged as soon as practicable in one agency for the entire occupied territory. In addition you will provide full reports to your government with respect to all German foreign exchange and external assets.

50. No extension of credit to Germany or Germans by any foreign person or Government shall be permitted except that the Control Council may in special emergencies grant permission for such extensions of credit.

51. It is not anticipated that you will make credits available to the Reichsbank or any other bank or to any public or private institution. If, in your opinion, such action becomes essential, you may take such emergency actions as you may deem proper, but in any event, you will report the facts to the Control Council.

52. You will maintain such accounts and records as may be necessary to reflect the financial operations of the military government in your zone and you will provide the Control Council with such information as it may require, including information in connection with the use of currency by your forces, any governmental settlements, occupation costs, and other expenditures arising out of operations or activities involving participation of your forces.

MILITARY GOVERNMENT — GERMANY
UNITED STATES ZONE

B.

GENERAL ORDER No. 2

(Pursuant to Military Government Law No. 52 — Blocking and Control of Property)

I. G. FARBENINDUSTRIE A. G.

WHEREAS, it is the main objective of the United Nations to prevent Germany from ever again disrupting the peace of the world;

WHEREAS, I. G. FARBENINDUSTRIE A. G. played a prominent part in building up and maintaining the German war machine;

WHEREAS, through its world-wide cartel system and practices, I. G. FARBENINDUSTRIE A. G., as a deliberate part of Germany's bid for world conquest, hampered the growth of industry and commerce of other nations and weakened their power to defend themselves;

WHEREAS, the war-making power represented by the industries owned or controlled by I. G. FARBENINDUSTRIE A. G. constitutes a major threat to the peace and security of the post-war world so long as such industries remain within the control of Germany;

WHEREAS, it is essential to the objectives of the United Nations to take over the direction and control of I. G. FARBENINDUSTRIE A. G. and to seize possession of its property in order to bring about its destruction and the war-making potential which it represents; and

WHEREAS, it is intended that the property seized will be placed at the disposition of the Control Council (Germany), when such action is desired by the Control Council;

IT IS HEREBY ORDERED:

1. All the property within the United States Zone in Germany owned or controlled, directly or indirectly, by I. G. FARBENINDUSTRIE A. G., a corporation organized and existing under and by virtue of the laws of Germany with seat and head office at Frankfurt a/Main, is hereby specified under paragraph 1 (g) of Military Government Law No. 52 to be subject to seizure of possession, direction, and control by Military Government.

2. The direction and control of I. G. FARBENINDUSTRIE A. G. and the possession of all its property in the United States Zone are hereby seized by the Military Governor, United States Zone.

3. Pending the assumption of control of such property by the Control Council, or an agency thereof, all the powers of the Military Governor, United States Zone, with respect to the property seized pursuant hereto and with respect to the direction and control of the corporation are hereby delegated to the Deputy Military Governor, United States Zone. Redelegation of any or all such powers is hereby authorized. In the exercise of such powers, the Deputy Military Governor, United States Zone, or any person acting by or under his authority with respect to the property affected hereby shall not be subject to German law.

4. In the exercise of such powers the Deputy Military Governor, or any person acting by or under his authority with respect to such property, shall

be guided by the general objectives stated in the preamble hereof and by the following specific objectives, and will take such measures as he deems appropriate to accomplish them:

a. The making available to devastated non-enemy countries of Europe and to the United Nations, in accordance with such programs of relief, restitution and reparations as may be decided upon, of any of the property seized under this order and, in particular, of laboratories, plants and equipment which produce chemicals, synthetic petroleum and rubber, magnesium and aluminum, other non-ferrous metals, iron and steel, machine tools and heavy machinery.

b. Destruction of all property seized under this order and not transferred under the provisions of paragraph *a* above if adapted to the production of arms, ammunition, poison gas, explosives and other implements of war, or any parts, components or ingredients designed for incorporation in the foregoing, and not of a type generally used in industries permitted to operate within Germany;

c. Dispersion of the ownership and control of such of the plants and equipment seized under this order as have not been transferred or destroyed pursuant to paragraphs *a* and *b* above.

5. *a.* The entire management of I. G. FARBENINDUSTRIE A. G., including but not limited to the supervising board (Aufsichtsrat), the board of directors (Vorstand), and directors (Direktorium) and all other persons, whether office-holders or not, who are empowered, either alone or with others, to bind or sign for on behalf of I. G. FARBENINDUSTRIE A. G. are forthwith removed and discharged and deprived of all authority to act with respect to the corporation or its property.

b. The rights of shareholders in respect of selection of management or control of I. G. FARBENINDUSTRIE A. G. are suspended.

6. Article IV of Military Government Law No. 5 shall not be applicable to any property or enterprise affected by this General Order.

7. This General Order shall become effective on 5 July, 1945.

BY ORDER OF MILITARY GOVERNMENT

C.

Potsdam Agreement

Joint Report on Results of the Anglo-Soviet-American Conference (Berlin 1945)

Released August 2, 1945

Excerpts

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III. Germany

The Allied armies are in occupation of the whole of Germany and the German people have begun to atone for the terrible crimes committed under the leadership of those whom in the hour of their success, they openly approved and blindly obeyed.

Agreement has been reached at this conference on the political and economic principles of a coordinated Allied policy toward defeated Germany during the period of Allied control.

The purpose of this agreement is to carry out the Crimea Declaration on Germany. German militarism and Nazism will be extirpated and the Allies will take in agreement together, now and in the future, the other measures necessary to assure that Germany never again will threaten her neighbors or the peace of the world.

It is not the intention of the Allies to destroy or enslave the German people. It is the intention of the Allies that the German people be given the opportunity to prepare for the eventual reconstruction of their life on a democratic and peaceful basis. If their own efforts are steadily directed to this end, it will be possible for them in due course to take their place among the free and peaceful peoples of the world.

The text of the agreement is as follows:

The Political and Economic Principles To Govern the Treatment of Germany in the Initial Control Period

A. Political Principles.

1. In accordance with the agreement on control machinery in Germany, supreme authority in Germany is exercised, on instructions from their respective governments, by the Commanders-in-Chief of the armed forces of the United States of America, the United Kingdom, the Union of Soviet Socialist Republics, and the French Republic, each in his own zone of occupation, and also jointly in matters affecting Germany as a whole, in their capacity as members of the Control Council.

2. So far as is practicable, there shall be uniformity of treatment of the German population throughout Germany.

3. The purposes of the occupation of Germany by which the Control Council shall be guided are:

(i) The complete disarmament and demilitarization of Germany and the elimination or control of all German industry that could be used for military production. To these ends:

(*a*) All German land, naval and air forces, the S. S., S. A., S. D., and Gestapo, with all their organizations, staffs and institutions, including the General Staff, the Officers' Corps, Reserve Corps, military schools, war veterans' organizations and all other military and quasi-military organizations, together with all clubs and associations which serve to keep alive the military tradition in Germany, shall be completely and finally abolished in such manner as permanently to prevent the revival or reorganization of German militarism and Nazism.

(*b*) All arms, ammunition and implements of war and all specialized facilities for their production shall be held at the disposal of the Allies or destroyed. The maintenance and production of all aircraft and all arms, ammunition and implements of war shall be prevented.

(ii) To convince the German people that they have suffered a total military defeat and that they cannot escape responsibility for what they have brought upon themselves, since their own ruthless warfare and the fanatical Nazi resistance have destroyed German economy and made chaos and suffering inevitable.

(iii) To destroy the National Socialist Party and its affiliated and supervised organizations, to dissolve all Nazi institutions, to ensure that they are not revived in any form, and to prevent all Nazi and militarist activity or propaganda.

(iv) To prepare for the eventual reconstruction of German political life on a democratic basis and for eventual peaceful cooperation in international life by Germany.

4. All Nazi laws which provided the basis of the Hitler regime or established discrimination on grounds of race, creed, or political opinion shall be abolished. No such discriminations, whether legal, administrative or otherwise shall be tolerated.

5. War criminals and those who have participated in planning or carrying out Nazi enterprises involving or resulting in atrocities or war crimes shall be arrested and brought to judgment. Nazi leaders, influential Nazi supporters and high officials of Nazi organizations and institutions and any other persons dangerous to the occupation or its objectives shall be arrested and interned.

6. All members of the Nazi Party who have been more than nominal participants in its activities and all other persons hostile to Allied purposes shall be removed from public and semi-public office, and from positions of responsibility in important private undertakings. Such persons shall be replaced by persons who, by their political and moral qualities, are deemed capable of assisting in developing genuine democratic institutions in Germany.

7. German education shall be so controlled as completely to eliminate Nazi and militarist doctrines and to make possible the successful development of democratic ideas.

8. The judicial system will be reorganized in accordance with the principles of democracy, of justice under law, and of equal rights for all citizens without distinction of race, nationality or religion.

9. The administration of affairs in Germany should be directed towards the decentralization of the political structure and the development of local responsibility. To this end:

(i) Local self-government shall be restored throughout Germany on democratic principles and in particular through elective councils as rapidly as is consistent with military security and the purposes of military occupation;

(ii) All democratic political parties with rights of assembly and of public discussion shall be allowed and encouraged throughout Germany;

(iii) Representative and elective principles shall be introduced into regional, provincial and state (land) administration as rapidly as may be justified by the successful application of these principles in local self-government;

(iv) For the time being no central German government shall be established. Nothwithstanding this, however, certain essential central German administrative departments, headed by state secretaries, shall be established, particularly in the fields of finance, transport, communications, foreign trade and industry. Such departments will act under the direction of the Control Council.

10. Subject to the necessity for maintaining military security, freedom of speech, press and religion shall be permitted, and religious institutions shall be respected. Subject likewise to the maintenance of military security, the formation of free trade unions shall be permitted.

B. Economic Principles.

11. In order to eliminate Germany's war potential, the production of arms, ammunition and implements of war as well as all types of aircraft and

sea-going ships shall be prohibited and prevented. Production of metals, chemicals, machinery and other items that are directly necessary to a war economy shall be rigidly controlled and restricted to Germany's approved post-war peacetime needs to meet the objectives stated in paragraph 15. Productive capacity not needed for permitted production shall be removed in accordance with the reparations plan recommended by the Allied Commission on reparations and approved by the governments concerned or if not removed shall be destroyed.

12. At the earliest practicable date, the German economy shall be decentralized for the purpose of eliminating the present excessive concentration of economic power as exemplified in particular by cartels, syndicates, trusts and other monopolistic arrangements.

13. In organizing the German economy, primary emphasis shall be given to the development of agriculture and peaceful domestic industries.

14. During the period of occupation Germany shall be treated as a single economic unit. To this end common policies shall be established in regard to:

(*a*) Mining and industrial production and allocations;
(*b*) Agriculture, forestry and fishing;
(*c*) Wages, prices and rationing;
(*d*) Import and export programs for Germany as a whole;
(*e*) Currency and banking, central taxation and customs;
(*f*) Reparation and removal of industrial war potential;
(*g*) Transportation and communications.

In applying these policies account shall be taken, where appropriate, of varying local conditions.

15. Allied controls shall be imposed upon the German economy but only to the extent necessary:

(*a*) To carry out programs of industrial disarmament and demilitarization, of reparations, and of approved exports and imports.

(*b*) To assure the production and maintenance of goods and services required to meet the needs of the occupying forces and displaced persons in Germany and essential to maintain in Germany average living standards not exceeding the average of the standards of living of European countries. (European countries means all European countries excluding the United Kingdom and the Union of Soviet Socialist Republics.)

(*c*) To ensure in the manner determined by the Control Council the equitable distribution of essential commodities between the several zones so as to produce a balanced economy throughout Germany and reduce the need for imports.

(*d*) To control German industry and all economic and financial international transactions, including exports and imports, with the aim of preventing Germany from developing a war potential and of achieving the other objectives named herein.

(*e*) To control all German public or private scientific bodies, research and experimental institutions, laboratories, et cetera, connected with economic activities.

16. In the imposition and maintenance of economic controls established by the Control Council, German administrative machinery shall be created and the German authorities shall be required to the fullest extent practicable to proclaim and assume administration of such controls. Thus it should be

brought home to the German people that the responsibility for the administration of such controls and any break-down in these controls will rest with themselves. Any German controls which may run counter to the objectives of occupation will be prohibited.

17. Measures shall be promptly taken:

(*a*) To effect essential repair of transport;

(*b*) To enlarge coal production;

(*c*) To maximize agricultural output; and

(*d*) To effect emergency repair of housing and essential utilities.

18. Appropriate steps shall be taken by the Control Council to exercise control and the power of disposition over German-owned external assets not already under the control of United Nations which have taken part in the war against Germany.

19. Payment of reparations should leave enough reserves to enable the German people to subsist without external assistance. In working out the economic balance of Germany the necessary means must be provided to pay for imports approved by the Control Council in Germany. The proceeds of exports from current production and stocks shall be available in the first place for payment for such imports.

The above clause will not apply to the equipment and products referred to in paragraphs 4 (A) and 4 (B) of the Reparations Agreement.

IV. Reparations from Germany

In accordance with the Crimea decision that Germany be compelled to compensate to the greatest possible extent for the loss and suffering that she has caused to the United Nations and for which the German people cannot escape responsibility, the following agreement on reparations was reached:

1. Reparation claims of the U.S.S.R. shall be met by removals from the zone of Germany occupied by the U.S.S.R. and from appropriate German external assets.

2. The U.S.S.R. undertakes to settle the reparation claims of Poland from its own share of reparations.

3. The reparation claims of the United States, the United Kingdom and other countries entitled to reparations shall be met from the western zones and from appropriate German external assets.

4. In addition to the reparations to be taken by the U.S.S.R. from its own zone of occupation, the U.S.S.R. shall receive additionally from the western zones:

(A) 15 per cent of such usable and complete industrial capital equipment, in the first place from the metallurgical, chemical and machine manufacturing industries, as is unnecessary for the German peace economy and should be removed from the western zones of Germany, in exchange for an equivalent value of food, coal, potash, zinc, timber, clay products, petroleum products, and such other commodities as may be agreed upon.

(B) 10 per cent of such industrial capital equipment as is unnecessary for the German peace economy and should be removed from the western zones, to be transferred to the Soviet Government on reparations account without payment or exchange of any kind in return.

Removals of equipment as provided in (A) and (B) above shall be made simultaneously.

5. The amount of equipment to be removed from the western zones on

account of reparations must be determined within six months from now at the latest.

6. Removals of industrial capital equipment shall begin as soon as possible and shall be completed within two years from the determination specified in paragraph 5. The delivery of products covered by 4 (A) above shall begin as soon as possible and shall be made by the U.S.S.R. in agreed installments within five years of the date hereof. The determination of the amount and character of the industrial capital equipment unnecessary for the German peace economy and therefore available for reparations shall be made by the Control Council under policies fixed by the Allied Commossion on Reparations, with the participation of France, subject to the final approval of the zone commander in the zone from which the equipment is to be removed.

7. Prior to the fixing of the total amount of equipment subject to removal, advance deliveries shall be made in respect of such equipment as will be determined to be eligible for delivery in accordance with the procedure set forth in the last sentence of paragraph 6.

8. The Soviet Government renounces all claims in respect of reparations to shares of German enterprises which are located in the western zones of occupation in Germany as well as to German foreign assets in all countries except those specified in paragraph 9 below.

9. The Governments of the United Kingdom and the United States of America renounce their claims in respect of reparations to shares of German enterprises which are located in the eastern zone of occupation in Germany, as well as to German foreign assets in Bulgaria, Finland, Hungary, Rumania and Eastern Austria.

10. The Soviet Government makes no claims to gold captured by the Allied troops in Germany.

APPENDIX 3
SELECTED EXHIBITS FROM KILGORE COMMITTEE REPORT ON IG FARBEN

The documents and statements in this appendix are part of the great accumulation of evidence presented in February, 1946, to Senator Harley Kilgore's sub-committee of the U. S. Senate Military Affairs Committee. The evidence had been gathered by the team of investigators under Colonel Bernard Bernstein who broke through the veil of secrecy surrounding IG Farben in Germany.

EXHIBIT No. 1 (Chapter II of Kilgore Committee Report)

"Tarnung" (camouflage) of German Agencies Abroad

(Translated by Dr. Küpper)

In the time after the first war we more and more came to the decision to "tarn" our foreign selling companies, i. e., to establish such companies as firms of the law of the country concerned and to distribute the shares of these firms in such a way that the participation of IG in these firms was not shown. In the course of time the system became more and more perfect and was modified according to the conditions prevailing for the time being so that even a thorough investigation could not find any material that there was an indirect connection with IG. This system of "Tarnung" applied practically only to our selling companies, plants mixing dyestuffs, and some pharmaceutical factories. For the rest of the factories, all of which were companies established under the law of the country concerned, the necessity of "Tarnung" generally was not given. Neither the angle of the tax situation nor the other reasons hereinafter given prevailed for them. A special case was only Spain where the legislation for the protection of industry forced us not openly to show at least a part of our participation.

The "Tarnung" in the past has not only been of great advantage in the commercial and tax situation which figured in many millions, but also in

the consequence of this war the system "Tarnung" gave us the chance in a large scale to secure our organization, the investments, and the advance on our outstanding claims.

In case of gaining this war, the mightful situation of the Reich will make it necessary to reexamine the system of "Tarnung." Politically seen, it will often be wished that the German character of our foreign selling companies is openly shown. In this respect already before this war strong wishes of the A. O. became loud, which naturally after a war gained will become a clear demand. Already now, for instance, Gauleiter Hess of the A. O. has asked only to acquire the shares held by neutral shareholders in the Chemdyes, Ltd. We hereto gave detailed also written report with the result that such demand was taken back. The A. O. in a letter to the Reichsgruppe Industrie also suggested that further plans of "Tarnung" are not liked and therefore refused.

It is therefore necessary carefully to examine the system of "Tarnung" in every respect. As fundamental principle may be stated that for justifiable political purposes the German character of our foreign agencies should not be shown everywhere where strong objections on the base of financial reasons of national importance cannot be made and where an "Enttarnung" (finishing of the "Tarnung") would practically not endanger the export to the countries in question.

I. Reasons of the "Tarnung"

(1) On the head tax reasons. The foundation of branch offices or subsidiaries would have meant an establishment of IG. The taxes to be paid for such establishments much higher than those of independent companies.

(2) The danger of war forced us to secure our organization and assets by "Tarnung." This system enabled us to maintain our selling organization, to secure our investments, and an advance on our outstanding claims.

(3) In the first years after the first war, the weakness of the Reich made it advisable to give our selling organization the national character of the country concerned.

(4) Commercial reasons also. "Tarnung" as protection against boycott. The customers preferred to buy from national firms.

(5) A branch office or a subsidiary forced to show the details of IG's balance and profit and loss account.

(6) A branch office or subsidiary being under aggravated control under the foreign currency regulations of the country concerned.

(7) The U. S. A. Antidumping Act of 1921. Price invoiced to U. S. A. to be compared with (*a*) foreign market value or (*b*) price invoiced to countries other than U. S. A., or (*c*) the cost of production.

For IG important that prices invoiced to U. S. A. only be compared with the prices invoiced to countries other than U. S. A. Hereto the Act of 1921 says that only prices to free and independent customers can be compared. Therefore the foundation of free and independent importers in Canada and Australia.

Law for protection of industry in Spain. Big advantages in respect of taxes and duties to national industries only, i. e., to such in which there is no foreign participation higher than 25%. Therefore, the half of our 50% participation in the Fence given to Unicolor which latter, of course, was "Tarned."

II. Reasons of "Tarnung" in the Future

For the future the following reasons will no longer prevail:

(1) The securing against war losses, as there will be a long time of peace.

(2) The position of the Reich strong enough to protect any German interest.

(3) Commercial reasons (boycott, etc.) not decisive.

(4) Advantage of firms of national character in dealing with the authorities of the country concerned not so important as the political reasons which will make the "Enttarnung" (finishing of "Tarnung") advisable.

For the rest the situation in every country has to be carefully examined.

(1) The U. S. A. Antidumping Act will remain. Therefore, continuing of the "Tarnung" in Australia and Canada, just to have two free and independent importers in these countries.

(2) The law of protection of industry in Spain will remain. Therefore, continuing of the "Tarnung" in Spain.

(3) For the decision, if we may run the risk to found an establishment (i. e., branch or subsidiary of IG) will be important to what extent the taxes will be higher—

(*a*) In relation to the countries in which our proposal as to tax regulations in the peace treaties will become practical there is no need of "Tarnung." It will no more be necessary to show to details of IG's balance. And the percentage of IG's turn-over on the base of which the taxable profit of IG in such countries will be calculated will be a reasonable one. If this percentage will be 5%, already then, the taxes of IG to be paid in such countries will be higher. But such a percentage of 5% must be considered as reasonable.

(*b*) For other countries individual examination. In those countries in which IG has already to pay taxes on the reason of having an establishment the "Tarnung" may be finished. Such countries are: Great Britain, Ireland, Roumania, Italy, Norway, Bulgaria, Hungaria.

For a number of other countries we made a calculation of the amount in which IG should have to pay higher taxes, if IG would have an establishment in such countries. (As tax rate 30% of the profit, as profit 5% of the turn-over only.)

	Reichsmarks		*Reichsmarks*
Yugoslavia	75,000	Holland	108,000
Greece	12,000	France	79,000
Switzerland	45,000	Spain	45,000
Denmark	53,000		
Sweden	77,000	In all	576,000
Belgium	72,000		

Therefore considerable higher taxes. In the other hand it may be taken that our proposals as to the tax regulations in peace treaties will become practical in relation to France, Holland and Belgium.

For British India special situation. Here foreign companies have to pay 45% super tax instead of 6.25% for British companies. In addition the estimate of our taxable profit would be very high. Therefore, higher taxes in British India. 1-2 million Reichsmark a year. In addition, in British India all details of IG's balance would have to be given. Therefore, "Tar-

nung" in British India would be continued if there can't be made the following international agreements with British India:

(1) According to IG's proposals as to tax regulations in peace treaties, super tax would be the same as for Indian companies.

(2) No higher percentage than 5% of the turn-over as taxable profit.

(3) No details of IG's balance to be given.

Such agreement will depend on which way British India will take.

As result:

"Enttarnung" (finishing of the "Tarnung") in Great Britain, Ireland, Italy, Hungaria, Roumania, Bulgaria, and Norway. The same in relation to countries to which our proposal as to the tax regulations in the peace treaties will apply and in relation to countries under political influence of the Reich.

In British India, Canada, and Australia continuing of the "Tarnung."

III. In What Form Will the "Enttarnung" Take Place

To be carefully done, especially in respect of persons who acted as our shareholders. Tax claims for the past to be avoided. Consequences in countries in which the "Tarnung" will be continued. "Enttarnung" only in such a way that the shares are officially bought from the persons acting as our trustee at a fair countervalue. (Of course, the consequences in taxpaying for the trustees themselves have to be regarded.) Finally it has to be examined how to found the new establishments. No branches of IG. Better if customers buy from a firm with a national name of the country concerned than from IG, the big type of German Economy. Also in relation to foreign authorities better not to have a branch. It must be taken in consideration also that our agencies sell non-IG products as well. A branch would immediately lead to taxation of IG whereas a subsidiary such consequences would arise after some time only. Therefore, no branch, but subsidiary of IG.

EXHIBIT No. 11 Chapter IV of Kilgore Committee Report

Statement by Max Ilgner, Dated June 18, 1945 on Assistance Given Wehrmacht, S. D., Government, and Party by Farben Abroad

Structure of the Report

A. General remarks:
   I. Organization and functions of IG Berlin N. W. 7.
   II. Administration of the sales organizations of IG abroad.
B. O. K. W. (Wehrmacht):
   I. Wehrwirtschaftsstab (General Thomas):
      (1) Economic ept. of IG (Volkswirtschaftliche Abteilung).
      (2) "Vermittlungsstelle W" (Wehrwirtschaft) of IG.
   II. Abwehr-Abteilung (Admiral Canaris):
      (1) "Abwehr Organisation" of IG.
      (2) Office of the commercial committee of board of directors (Büro des Kaufmännischen Ausschusses).
      (3) Economic Dept. of IG.
      (4) Other contacts.
C. S. D. (Sicherheitsdienst):
   (1) "Abwehr Organisation" of IG.
   (2) Reports of trips abroad and reports from abroad.

(3) Bayer organization.
(4) General contact asked in summer 1944.
(5) Other contacts.

D. Assistance asked by other organizations of government and party:
I. Governmental organizations:
(1) Foreign office:
(*a*) Economic Dept. of Foreign Office.
(*b*) Staatssekretär Keppler.
(2) Ministry of propaganda:
(*a*) Expert committee on foreign matters ("F.-Kreis").
(*b*) "Vereinigung zwischenstaatlicher Verbände" (incl. foreign office too).
(*c*) "Werberat der Deutschen Wirtschaft."
(3) Ministry of economics and ministry of armament:
(*a*) Foreign department (Länder-Abteilung) of R. W. M.
(*b*) Working committee for foreign trade-questions of the federations of industry and commerce (Arbeitskreis für Aussenwirtschaftsfragen der Reichsgruppen Industrie und Handel).
(*c*) Imports of Molybdän and Wolfram and leather.
(*d*) Imports of oil from Rumänia and raffination in Pressburg.
(*e*) Petsamo-Nickel.
(4) Other ministries or governmental institutions:
(*a*) Ministry of aviation: Norway light metal.
(*b*) Reichskommissar Norway: chemical industry.
(*c*) Militärbefehlshaber Frankreich: chemical industry.
(*d*) Militärbefehlshaber Italien: chemical industry.
II. Auslandsorganisation der N. S. D. A. P. (A. O.):
(1) IG contacts with A. O. in Germany.
(2) IG organizations abroad.
(*a*) Members of the A. O.
(*b*) Presidents of German clubs, etc.
(*c*) Presidents of Chamber of Commerce, etc.
(*d*) Other contacts.

A. General Remarks

I. Organization and Functions of IG Berlin N. W. 7

About this precise matter I have made a report, dated June 7th, which I rendered to Mr. Weiss. To show, what I can contribute to this matter as well for myself, as for my organization, I may state the following: IG Berlin N. W. 7, resp. their departments (9 chief departments and 35 subdepartments) exercised help functions for the sales organizations and partly also for the factories; no decisions on sales as well as on fabrication were made by IG Berlin N. W. 7. The 9 chief departments were headed by dept. directors or procurists or persons in the same rank (like Krüger—up to the middle of 44—Fahle, Terhaar, Reithinger, M. Passarge, and others). I, myself, had a largely extended knowledge of IG but—as too much—not going myself to details (except those matters I handled personally (see report of 7-6-45), also because since 1928 normally half of the year being outside of Germany or—once—being a long time ill (1939-40)).

II. Administration of the Sales Organizations of IG Abroad

About this matter I have reported in my report of 26-5-45. I will only repeat the most important facts, as far as this report is concerned. The administration of the sales organization abroad belonged to the field of activity resp. responsibility of the chiefs of the "Verkaufsgemeinschaften" (sales organizations of IG), the sales directors, and the counsels of the sales organization. The names are the following:

Dyes: v. Schnitzler, Kugler, Köhler, Overhoff, v. Brüning, and others—Küpper.

Chemicals: v. Schnitzler, Haefliger, Borgwardt, v. Heider, and others—Stein.

Pharmaceut.: Mann, Märtens, Grobel, Zahn, and others—Brüggemann.

Agfa: Otto, van Beek, Uhl, and others—Deissmann.

Nitrogen:[1] Oster, Hanser, Krüger (since middle of 44)—Nitrogen-Synd.

Oil:[2] Bütefisch, Fischer (until he entered the Min. of Economics)—

B. O.K.W. (Wehrmacht)

I. Wehrwirtschaftsstab (General Thomas)

This contact is an old one and goes back to the "Heereswaffenamt," which existed before the "Wehrwirtschaftsstab." In the year 1930 (?) Geheimrat Lederer introduced me to the chief of the Heereswaffenamt, General v. Bockelberg, Thomas then being a captain. The introduction of Leunagasolin in the German market in the years 1930-32 was strongly supported by this organization. After Bockelberg left, General Liese came whose aide-de-camp Thomas was then, and afterwards the Wehrwirtschaftsstab under Thomas was formed. When I became Wehrwirtschftsführer in 1938, Thomas asked me the specific support of the Economic Dept. of IG, but it was only done in 1939 (when I was absent on account of a serious heart trouble) by my substitute Dr. Krüger. Krüger made in 1939 his reserve-officer practice in the organization of Thomas (as well as Dr. v. d. Heyde, the Abwehrbeauftragte for my organization; but it is possible that the practice of v. d. Heyde was only during the war). Krüger established the contact between the Wehrwirtschaftsstab and Dr. Reithinger, resp. the economic dept. of IG; v. d. Heyde was also introduced by Krüger, resp. automatically concerned in this contact.

(1) *Economic Dept. of IG (Volkswirtschaftliche Abteilung) (Dr. Reithinger)*

All reports and interesting information had to be given to the Wehrwirtschaftsstab; these reports—how the selection was made in detail, I don't know—based on all foreign reports, which IG Berlin N. W. 7. received in the current course of business, incl. the reports of the IG Verbindungsmänner, other statistical Dept., Chemnyco (see my report Versailles, 10.5.45: "Die Rieseberichte von Dr. M. Ilgner, die Volkswirtschaftl. Abteilung und die Pressestelle der IG") and also on the material of my own reports on foreign trips. In addition to this I had given to Reithinger freedom of disposition—also to a certain extent financially—to secure himself foreign collaborators outside IG as the "Institut für Weltwirtschaft" in Kiel (Prof.

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[1] Mostly used the dyes and chemicals sales organizations of IG.

[2] No export from Germany, but purchases in Rumania and sales in C. S. R.

Schiler.

Predöhl), and the "Institut für Konjunkturforschung" (Prof. Wagemann) in order to save time as well as to get more material; especially during the war, when the organization of the economic dept. became always smaller by men going to army, this was a certain help. By giving Reithinger and his associates in their work free hand in every respect, the high standard of the independent work was reached; This naturally had on the other side the consequence that all authorities were very keen to get the reports and the cooperation of the economic dept. In the beginning of the war there were four ministries resp. governmental organizations, they wanted to take over the economic dept. as a whole, but as there was only *one* economic dept. of IG, it had to stay with IG. The four were: Economic dept. of the Foreign Office, Ministry of Economics (foreign dept.), Ministry of Agriculture, and "Wehrwirtschaftsstab." During the war all kind of statistics, economic information, etc. came in by help of Bayer organization in Portugal and partly by the Pressestelle of IG-Reithinger, from time to time, sent me a list of those reports he resp. the economic dept. had made—during the war—on demand of the Wehrwirtschaftsstab.

(2) *"Vermittungsstelle W" (Wehrwirtschaft), Berlin S. W. Kochstr. (Dr. Dieckmann, Dr. Gorr)*

The following directors of IG were responsible for this department: Sparte I (nitrogen, gasolin) Schneider, Bütefisch, Sparte II (dyes, chemicals, buna, pharmaceuticals) ter Meer, Hörlein, Ambros, Wurster, Sparte III (Agfa-film, photo, fibres, artificial silk) Gajewski, Kleine.

This organization originally was formed to avoid that important technical know-how and patents from the point of view of armament were given to foreign countries ("Industrieverschleppung").

What precise contact this organization had later on to the Wehrwirtschaftsstab resp. Ministry of Armament, especially during the war, I do not know.

II. Abwehr-Abteilung (Admiral Canaris)

I made the acquaintance of Major Bloch (then he was a captain) by the general secretary of the Mitteleuropäischen Wirtschaftstag Dr. Hahn, who was a friend of Bloch (in 1931 or 32 ?). I saw Bloch in the following years occasionally especially at the general meetings of the Mitteleuropäische Wirtschaftstag (president Baron v. Wilmowsky, myself becoming a vice president in 1938); after Hahn died in 1939, Dr. Dietrich became general secretary, but I don't know in which specific contact he was with Bloch. Baron v. Wilmowsky, I know, stood in a friendly relation to Col. Piekenbrock, whom myself met only once on occasion of a dinner party arranged by Dr. Krüger and Dr. Fahle, short before Piekenbrock and Bloch—both being at present, also a third officer (name forgotten)—left the "Abwehr-Abteilung" and took over military commands in the army (1943 or 44 ?). The other men (except one (see 4.) but name forgotten (page 6) especially Canaris, I never met.

(1) *"Abwehr-Organisation" of IG*

Originally, before 1933, there was an "Abwehr-Organisation" in Leverkusen but after 1933 the party did not consider this sufficient and in the IG as well in the whole of business life in Germany a new "Abwehr-Organisation" was introduced.

In every factory as well as in every other organization—also in mine—

Abwehrbeauftragte were nominated in resp. appointed by the party resp. S. D. This was in my own organization v. d. Heyde, Rüdiger later on taking his place when v. d. Heyde went to the army. As IG was so great and there were so many "Abwehrbeauftragte" of IG, the Abwehr-Abteilung of the O. K. W. (and S. D.?) wanted a so-called "Hauptabwehrbeauftragte" who should be on the top of all "Abwehrbeauftragte." At this time, Fahle told me that the men of the dept. Canaris would like to see him as Hauptabwehrbeauftragter and I communicated this to v. Knieriem, as I knew that this matter would be discussed in the executive committee of the board of IG, v. Knieriem being a member of the executive committee. But the executive committee, after the whole matter was delayed by Schmitz for months to the vexation of the O. K. W., did not accept this proposition, deciding it should be a member of the highest institution of IG (as it was a very delicate mission), that means of the executive committee of IG and Dr. Schneider, Leuna, was proposed to the Abwehr by Schmitz and later on accepted (I do not know whether also by S. D. but presumably). Schneider organized the "Abteilung A" (Abwehr) for his current contact to the "Abwehr"; this department was located in the same house, as the "Vermittlungsstelle W," Berlin S. W. Kochstr. In this department Dr. Dieckmann was in charge of all technical matters and Dr. v. d. Heyde of all commercial matters, Dr. Rüdiger being his substitute. About the work of this department I have no knowledge.

(2) *Office of the commercial committee of board of directors. (Büro des Kaüfmannischen Ausschusses.)*

All interesting reports of the IG Verbindungsmänner had to be given to the Abwehr and Major Bloch once asked me to make the personal acquaintance of the IG Verbindungsmänner, if one or the other should be on a trip in Germany. I told Bloch—this must have been in 1935 or 1936 ?—that the commercial committee of IG had the greatest hesitations of every kind of cooperation, if not strictly asked and also then only in the very field of current business reports and matters coming up in the normal course of affairs; Bloch understood this and agreed. I informed the office of the commercial committee (Fahle, G. Schiller, Schwarte, Saxer, and others) which took over contact with Bloch on this line; whether Bloch has seen IG Verbindungsmänner, I can't remember besides Mr. W. Schmidt from Siam.

(3) *Economic Dept. of IG*

The Abwehr wanted to have, like the Wehrwirtschaftsstab all interesting reports from abroad and they also were interested in the questionnaires of the Econ. dept. as already before the Economic Dept. of the Foreign Office as well as the A. O. I repeated to Major Bloch—it was the same conversation concerning the above-mentioned questions to the office of the commercial committee—that he could get only informations, they came to us in the current business organization and that IG would not be able—in respect to the standing of IG abroad—to cooperate in any other way. It was a matter of fact that IG informations—only in the current way of reports—were so complete, that IG could avoid to leave the line of current business information. That this high standard of information of the Economic Dept. was also a great advantage for the business decisions, I have shown in my additional report of the 23rd May 1945 re "The

Economic Dept. and the devaluation of the $ in 1933." The Economic Dept. of the IG was the best and most complete private economic dept. in Germany—this can be assumed—and how rich was the material of this department has been shown by the publication of the Econ. Dept. of IG in the years 1929-32 (four volumes: Elementary comparison between the United States of America, England, France, Italy, and Germany); in this work Prof. Richard von Moellendorff—the economic adviser of the Economic Dept. of IG, was largely participating and it can be considered in some way as a standard work.

(4) *Other contacts with the Abwehr-Abteilung*

(*a*) *W. v. Flügge.*—Flügge was on a retainer basis with IG since 1931-32 (Wagemann Plan); he was a promoting man in the Balkan (soya bean culture in Rumania and Bulgaria and minerals). As a half-Jew it was difficult to protect him in the Balkan and so Krüger arranged with him in 1939 to go to Turkey (export-fostering); Flügge made large reports to the Economic Dept. which went consequently amongst others also to the Abwehr-Abt. which in this way became particularly interested in his reports. Flügge was in contact with von Papen. 1944 he was put in concentration camp by the Gestapo; he was visited by Saxer, but we could not get him free.

(*b*) *Baron v. Lersner* was already since long years before 1933 on a retainer basis of IG (this being arranged by the late president of IG Geheimrat Bosch who was a good friend of Lersner). Lersner being also a half-Jew went also to Turkey in order to be protected and—I guess—because his close friend, von Papen, became an ambassador in this country. This all was arranged by Krüger during my illness in 1939. Lersner sent monthly reports (Stimmungsberichte)—more to do something for the money—and these reports went—if I remember right—to Weizsäcker of the Foreign Office and by him to the Abwehr and the Economic Dept. of the Foreign Office (?); IG got a copy.

(*c*) *Oeckl* was an employee of my organization, and during the war—as a soldier (Sonderführer)—got for a while a command to the Abwehr. One day he came to me and told me that a Col. Lieutenant of the "Abwehr-Abteilung" (see page 5) (name forgotten) wanted to speak to me on account of Portugal; even I did not know Portugal at all, I saw this man; he wanted to know about IG organization in Portugal, but as I knew really nothing—even the IG Verbindungsmann in Lisbon Ösenberg I only met once at lunch in Berlin—the conversation had—as far as I remember—no result. Whether somebody else afterwards has been asked, I do not know resp. I cannot remember. I tell this all because in Versailles I have been asked on account of Mr. Ösenberg, but I couldn't tell more.

(d) Kügler was also an employee of my organization and later on IG Verbindungsmann in Bukarest. During the war he became a soldier and also got a command to the Abwehrabteilung. But later on he partly was free of duty, so he was always at my disposition if I was on business—or industrial—committee—questions in Bukarest. One day Kügler asked for a leave and as he was going to Turkey, he had to confess to me for the first time that he had an special order of the Abwehr concerning Turkey; as he was under parol, I won't like to insist to ask him precise. This was the only time that Kügler missed his functions with me.

(e) *Hungarian officer (captain ?).*—Once—about 1942-43—at a meeting of the Mittleleuropäische Wirtschaftstag, Major Bloch came to me and asked me whether I could give a job in private business in Budapest that means in the IG organization to an Hungarian embassy in Ankara and who was helpful to him; but now this men had to leave Ankara and it would be neither agreeable for him to stay in Berlin. On my next stay in Budapest, I asked Mr. Deyhle of the Budanil whether he could give this man a chance to settle down, but there was none; so I asked Prof. Surany-Unger of the Hungarian group of the Mitteleuropäische Wirtschaftstag, but there was also no possibility. In the meantime I was informed that it was no more necessary because this man got some other job. Then I have never heard of this matter; the name I can't remember.

C. & S. D. (Sicherheitsdienst)

(1) *Abwehr-Organisation of IG*

This was the same organization as for the O. K. W. There was a double organization in government and party, which were put together after the 20th of July 44, the O. K. W. coming under the command of the S. S.

The Abwehrbeauftragte, who was appointed by the S. S. for my own organization was, as already mentioned, Dr. v. d. Heyde; he belonged in the same time to the dept. A (Hauptabwehrbeauftragter). v. d. Heyde himself was an S. S. man and member of the S. D.; the latter fact I never was officially told, but I am sure, he was. I also am sure that v. d. Heyde was ordered to watch me, like some others, and to report on me; but about all these things, it was absolutely impossible to see quite clear.

(2) *Reports of trips abroad and reports from abroad*

So far as I remember, the S. D. was the first, who asked reports to get from trips abroad, if exit permit was wanted as a condition sine qua non; later on practically all authorities concerned did it, if they thought it was worth while to ask for such reports. In my organization, v. d. Heyde and later on Rüdiger were the men, who got the order from the S. D. to look after these things, especially also to look after all other reports coming in from abroad (IG Verbindungsmänner, reports from me like Flügge and others) to be rendered to the S. D.; I passed the order to my associates resp. the different departments concerned.

(3) *Bayer-sales organization abroad*

I was told together with some other colleagues from Bütefisch in summer 1944 (see 4), that on his recommendation the S. D. had made an attempt of cooperation with the IG abroad and—as Bütefisch regarded Bayer to have the best organized sales organization abroad—this attempt was made with Bayer. As Bütefisch told us, this whole question came up, when again in the S. S. circles—Bütefisch was a member of the S. S. and belonged to a circle of businessmen, which was called "Himmler-Kreis" and to whom belonged men like Flick, Rasche, Rostey, and others and whose manager was a man named Kranefuss—heavy attacks on IG were brought up, especially of non-cooperation with the S. S. and S. D. The result of this attempt with Bayer organ, was said to be a failure or at least not that, what the S. S. resp. S. D. expected. As I otherwise have never heard of this cooperation—also Mann has never said anything about it—I can't say, how the cooperation was made. Only during the war all kind

of newspapers and other informations came in by the Bayer organization in Portugal as already mentioned and this might have been connected with the aforesaid.

On the same occasion, when Bütefisch told us in Heidelberg—Schmitz, Schneider, Oster, and myself—the aforesaid matter concerning Bayer, he rendered the desire of Schellenberg of the S. D. to Schmitz, to have a general talk with him. Schmitz tried to escape and—as it had been spoken of contacts abroad and general economics—he asked me, to take up contact with Schellenberg in Berlin (Schmitz always remaining in Heidelberg). I ordered my secretariat to ring up the office of Schellenberg (whom I never have met or talked to) and tell him, that Schmitz had asked me on his behalf to talk to him (in order to find out, what he really wanted). I got no answer; as time past and next IG meetings were expected to take place in Heidelberg in short time, I wrote a short note to Schellenberg, repeating my instruction received by Schmitz; no answer again. Then the IG meeting took place and Bütefisch very concerned, reported that the S. S. people resp. Schellenberg were furious about the whole. They wanted to see Schmitz and they did not want to see me at all (perhaps my economic department was considered to be interesting) and now they asked ultimatively, whether Schmitz was ready to see him or not. Schmitz did not want to be alone, when Schellenberg would come and wanted to have Bütefisch (for patent-questions) Schneider (as Hauptabwehrbeauftragter) and me (for foreign economic questions) with him; but Bütefisch was already told, that Schellenberg wanted definitely to see Schmitz alone, perhaps together with Bütefisch; later on there might be an conversation including us others. Bütefisch at the end was asked to tell Schellenberg, that Schmitz was not in the position to come to Berlin and that he was willing to receive Schellenberg in Heidelberg. In the meantime came the 20th of July 1944 and the S. D. was tied up in this matter, so the IG question never came up again and nothing was done.

(5) *Other contacts with the S. D.*

(*a*) In a new report: "My position to the national socialism and to the international cooperation," who will be ready in two days, I will report in an article: "*personnel difficulties by* the party and the *S. S.*" about contacts I had with the *Gestapo* resp. the *S. D.*, in order to get exit permit for my wife, to visit her mother in Sweden, both being Swedish, resp. Swedish born. In this connection I asked also, when nothing helped, my former associate in the IG Neubacher to write to Kaltenbrunner, as I had no contact, in order to help me after two years of refuse to get the permission for my wife, especially as my mother-in-law was seriously sick, quite alone and became 70 years old; but nevertheless: no result. I also talked to Dr. Jury with whom I had to do occasionally on account of the Donau Chemie A. G., Vienna and he promised to write to Kaltenbrunner, also no result. In the meantime the German minister in Stockholm had on demand of my mother-in-law by Swedish friends—without myself knowing it— also written to the S. D. by the way over the foreign office; again no result. Then I was advised, to see Prof. Schmidt, whom I knew from Vienna, as he still was Gauwirtschaftsberater to Jury, and who now was in the department of Schellenberg. When I saw Schmidt, he told me that I had a very bad atmosphere in the S. D. and he could not make me any hope. When I left the house of the S. D. in which Prof. Schmidt had his

office, Dr. Ruperti of the Allianz came to me—I knew Ruperti from the F.-Kreis (ministry of propaganda in the years 1933-34)—and told me, that he knew about my difficulties and he was willing to try to help me. He came to me and told me that the S. D. suspected me in every respect on account of my engaging former generals, half-Jewish having left official positions, because I was not willing to cooperate and so on. My "Abwehrbeauftragter" (Rüdiger (v. d. Heyde being at this time with the army) was too small caliber and they wanted to have a bigger man. Nevertheless also Ruperti made a hopeless impression (this was early in the beginning of 1945) and even if he promised to help me to get the exit permit for my wife and our two daughters, I had no great hope more and nothing was done, neither in the private thing as in the other, as I let things go and two months later, all was over.

(*b*) *Max Unz Ankara.*—When Unz, the former IG-Verbindungsmann in Ankara was put—after his return in Germany—in concentration camp at Oranienburg, my organization wrote to v. Papen, who was also back in this time, whether he could help. Papen wrote that he regretted, he could do nothing but we should write to Staatssekretär Kaltenbrunner. We did this, but no answer.

(*c*) *Prof. Gross, Wien.*—As I have been asked on behalf of Professor Gross, the chief of the branch office of the economic dept. in Vienna, although I do not know at all what kind of contacts he had to the S. S. or S. D. and as it seems to me that his name has been connected in the questions put to me re the Abwehrstelle Ost in Breslau (of which I never heard before this name was mentioned in the questions put to me) I want to report all of him, I know. Gross was in the same time professor of national economy on the Hochschule für Welthandel in Vienna and I arranged with the rector of this university-institution, that Gross should be free half the time in the IG for his work in his institution (I was interested by economists like Reithinger, Fürst, Gross, and others to continue closely contacts with science and universities). As Prof. Knoll, the rector of the aforesaid institution was member of the S. S. and possibly (?) of the S. D. there might have been the contact I have been asked, but I am not sure at all.

(*d*) *Prinz Rohan.*—There is as an other man, with whom IG people—especially Mr. and Mrs. von Schnitzler were connected already long years before 1933—Prince Rohan who was retained by IG as an agricultural and publicity adviser. Rohan was connected with the "Europäische Revue" which was in the beginning financially and generally helped by IG. In my industrial conferences in Budapest during the war, Rohan assisted me, as well as the Mitteleurop Wirtschaftstag, if difficulties came up in these negotiations and discussions, as he had an excellent position and first-class contacts in Hungaria, his wife being a daughter of the well-known late Count Appony. I know that Rohan had contact with Kaltenbrunner and that is why I report. Rohan sent reports to Kaltenbrunner, especially from western countries like France, where he was more at the end of the war; from these reports he gave me as well as v. Schnitzler occasionally copies. This contact of Rohan with Kaltenbrunner had neither to do with the IG as well as with my field of industrial activity in Hungaria, but I know that Rohan had informed Kaltenbrunner that he was in an advisory capacity to IG and myself.

D. Assistance Asked by Other Organizations of Government and Party

I. Governmental Organizations

(1) *Foreign office*

(*a*) *Economic department of the foreign office.*—This was the oldest contact of my organization, especially of the economic dept. of my own organization. This contact was installed by the late economic adviser of IG, Professor Richard von Moellendorff, with whom I made my first trip to U. S. A. in order to study, how to build up an economic department (1928) and by Professor Wagemann. Ritter was at this time chief of the economic dept. of the foreign office and he was very fond of the cooperation with our economic dept. so that he often preferred our elaborates and reports to those of the Statistische Reichsamt as being quicker at his disposition and more living. The consequence was, that he made the "green reports" of our economic dept. well known and by and by more organizations were asking for them. But at this time Reithinger used this fact to follow as far as possible a "do ut des" politic and IG received in this way a great many valuable informations. Naturally after 1933 also this contact changed from year to year in another direction.

(*b*) *Staatssekretär Keppler.*—This man asked me several times to send him interesting reports during the war and from time to time he remembered me, because it was often forgotten by my organization and myself, as Keppler was no important man (as I saw it, he had not much to do with current business questions).

(2) *Ministry of propaganda*

(*a*) *Expert committee on foreign affairs (1933-34) (F. Kreis).*—About this cooperation I reported already in my report Paris, 5. V. 45 re. my biography and activity as well as I will report in my new report "My position to the N.S. and to the international cooperation," which will be ready, as I already mentioned, in two days.

Here I only want to state, that this committee (called "F-Kreis"="Wirtschafts-Führer-Kreis") was a fair attempt of leading business people to influence the min. of prop. to make a *fair "publicity"* instead of an *unfair "propaganda."* Something could be done, but in the long run unfortunately nothing; the committee shortly after the 30th June 34 ended by himself.

(*b*) *"Vereinigung zwischenstaatlicher Verbände."*—About this question I referred already complete in my report: Paris, 8.5.45: The contacts of IG with Ivy Lee and with the "Propaganda" and the activity of the "Vereinigung Carl Schurz." Long years before 1933 IG and her leading men were assisting all these international organizations both by active cooperation as financially. The international position of IG and IG people in the world made it self understanding, that we had to assist all these efforts of international cooperation and better understanding. This was also the reason, why I accepted the presidentship of the Vereinigung Carl Schurz for what I never was asked by any party organization but only from people belonging to the circle of original creators of the Vereinigung Carl Schurz in the year 1928. My sincere wish and hope in accepting the presidentship was to assist to my part to a better understanding between the American and the German people and to do this attempt on the basis of fair principles as the: "come and see" or by a fair publicity, where we were following the lines of American advises. It was further on the line

of the V. C. Sch. to keep separated from the so-called "Nazi Propaganda" and we could do a lot, even if always the N. S. authorities tried to interfere. IG and I personally assisted in the conviction, that it was our duty, to prevent, that things run to the worse. This was the opinion of that time, but naturally today all looks in a different way. I have written about this problem also in my new above-mentioned report: "My position to the national socialisme and to the international cooperation."

(*c*) *"Werberat der Deutschen Wirtschaft."*—This was also an organization in a mere advisory capacity re. international exhibitions a. s. o.; IG was represented in this organization by v. Schnitzler, Mann, Uhl and others.

(3) *Ministry of economics and ministry of armament*

(*a*) *Foreign department ("Länder-Abteilung") of R. W. M.*—This contact—similar as the contact to the economic dept. of the foreign office—existed also already long before 1933 when men like Posse, Sarnow, Waldeck, and later on Warmbold (Brüning's minister of economics, who formerly used to be a member of board of directors of IG).

All reports from abroad—if interesting for the ministry—were given and naturally it was difficult in any way, to stop things after 1933, which we had done voluntarily before 1933. Besides that the contact with the ministry of economics was still more important for the IG, as most of the wishes of IG concerning governmental authorities ended in the ministry of economics. During the war the contact with the foreign dept. of the min. of economics was still closer by the cooperation in the industrial committee and the working committee for foreign trade questions, in both of which I was cooperating personally (see my report: "My position to the N. S. * * *").

(*b*) *Working Committee for foreign trade questions of the federations of industry and commerce (Arbeitskreis für Aussenwirtschaftsfragen der Reichsgruppen Industrie und Handel).*—About this committee, which I just mentioned a few lines ago, I also reported in the Paris report of 5. V. 45: "My biography and activities." In this committee I was asked to elaborate reports on the following raw materials in respect to the time after the war: Nitrogen, chemical fibres, buna, and light metals (magnesium). These elaborates were made by Reithinger and Fürst, resp. our economic dept., Reithinger being himself appointed as a member of the staff of this working committee. For the above-mentioned reports also statistical material of the ministry of economics was given and used.

(*c*) *Imports of Molybdän and Wolfram and leather.*—I mention this, because I have been asked, to tell all supports given IG to authorities and as these imports were to the benefit not of IG only, they might be mentioned. The IG people or depts. concerned with this matter were: Meyer-Küster (Chemical dept.), central purchasing dept. (Klatt), and the dept. for foreign exchange/imports (Gierlichs, A. Müller). This was something concerning both the min. of economics and the min. of armament and was some business like this handled by Krüger and Gierlichs: imports of leather from Portugal against peas from Hungaria, a compensation business, which—to my knowledge—never succeeded.

(*d*) *Imports of oil from Rumania and reffination in Pressburg.*—This business was handled by Bütefisch, E. Fischer, Conzen, Willig (?) and with the assistance of the following organizations, in which IG participated indirectly:

Sardep, S. A. R., Bukarest, Stad, Bukarest, and Apollo-Mineralöl-Raffinerie, Pressburg.

(*e*) *Petsamo-Nickel.*—This business was done by a consortium, in which Metallgesellschaft, Krupp, and IG took a share. The men of IG who had to do with this business—to furnish the German armament with Nickelmatte—were Haefliger, Brendel, Fahle, Schubarth (?) and other people in Finnland and Oppau (Müller-Cunrady the resp. techn. member of board). On the Finnish side was a Baron Wrede.

(4) *Other ministries or governmental institutions*

(a) Ministry of aviations Norway—lightmetal.—The whole program was ordered by Göring and started by his man Koppenberg, who gave definite instructions to Krauch and Schmitz. IG was already since long years, as well as Norsk-Hydro A. S., Oslo, with which firm IG was friendly connected since 1907/resp. 1927, planning to erect a magnesium factory in Norway. But now this old and solid plan was mixed up with the fantastic plan of Koppenberg and it was very hard to bring our own matters along in a reasonable way and in the same time respecting the interests of Norsk-Hydro and the old friendly relation, which at least we succeeded. But the whole program was a failure as many. (See report: "My position to N. S. * * *)."

(*b*) *Reichskommissar Norway: chemical industry.*—Von der Bey of IG Bitterfeld was appointed by the government to this job. He had to look after the necessities of chem. business in Norway and as far as I know, he succeeded in doing this job objectively and getting the confidence of the Norwegian people concerned.

(*c*) *Militärbefehlshaber Frankreich: chemical industry.*—The IG Verbindungsmann in France, Krauch, was in a closed contact to Min. Dir. Michel, the chief of the economic dept. of the Militärbefehlshaber in resp. to chemical industry, but I have no precise knowledge of the position he had.

(*d*) *Militärbefehlshaber Italien: chemical industry.*—Ter Meer of the board of IG was appointed by the government to this post, but I have no particular knowledge, what he had to do, resp. he did.

II. Auslandsorganisation der N. S. D. A. P. (A. O.)

(1) *IG contacts with A. O. in Germany*

I have reported about this matter already in my report: Paris, 8.5.45: "The relations of IG to Ivy Lee and to the "Propaganda" and the activity of the Vereinigung Carl Schurz" in chapter II.3. On account of the many and permanent difficulties of IG with the A. O., on desire of the A. O. a member of board of IG, Waibel, was nominated to deal all matters with A. O. Waibel kept contact with me, resp. my organization; especially Krüger and Gierlichs had to deal very often with the A. O., but also Terhaar, Müller, and others; half of all questions concerned Jewish employees, resp. agents.

So far reports are concerned, the A. O. as well as the S. D. asked for these, especially in connection with trips abroad and the system: "no exit permit if no report" was later on a general, naturally depending from the person who was travelling and on what matter.

(2) *IG organizations abroad*

As to the responsibility of these organizations, I referred to the beginning of this report: "A. General remarks: II. Administration of the sales organizations of IG abroad."

Owing to the fact, that IG business in all countries of the world was always in comparison with other German exports—at one of the first, if not at the first place, the German IG representatives or agents were always—already long years before 1933—playing a leading role in the German colonies, schools, and other kinds of clubs or organizations. After 1933 there were always troubles with the A. O. organizations in the various countries and not only on Jew questions, but also of non- or not sufficient cooperation, not granting sufficient financial help, not assisting at party meetings or "Deutsche Tag" or "1.Mai" or something like that, or not showing the "swastica" on occasions whatever or the employees not contributing sufficient to the Winterhilfswerk—altogether endless complaints. This was the reason that the A. O. specifically demanded, if leading men of IG went abroad, to visit the Landesgruppen and Ortsgruppenleiter. In this way I visited these people in my various trips abroad and trying to come along with them or to report at home to my colleagues responsible for the organizations concerned.

As to the leading men of IG sales organizations abroad, who kept leading posts as members of the "Auslandsorganisation der NSDAP." or as presidents of German clubs or as presidents of German chambers of commerce or something similar, I will bring, as to the best of my knowledge, these names, not knowing always how close they were connected with the party:

(*a*) Members of the A. O.:

Empting (dyes): Landesgruppenleiter Jugoslavien.
Huber (nitrogen): Wirtschaftsberator of A. O. in Spain or something like that. I have no specific knowledge.
de Margerie (Bayer): Landesgruppenleiter Venezuela.
Peter (dyes): Ortsgruppenleiter Sofia.
Pilling (Agfa): Partei, Richter, Norwegen.
Urchs (Bayer): Landesgruppenleiter Brit. India (but as far as I know, was dismissed years ago on account of party-troubles).

(*b*) Presidents of German clubs etc.:

H. M. Fischer (dyes): President of German club Mexico-City (?).
C. Gadow (dyes): President of German club, Shanghai (?).
Kluthe (dyes): President of German club, Milan (?).
About these three functions I am not sure.
v. Humboldt (N. W. 7): Assistant to Mr. H. M. Fischer, Mexico City; kept contact to the Humboldt society, later on stepped out of IG.

(*c*) Presidents of German chambers of commerce etc.:

Birk (dyes): President of German chamber of com., Madrid.
H. Bosch (nitrogen): President of German chamber of com., Tokyo.[1]
Deyhle (dyes): President of German chamber of com., Budapest.
Kaelble (Bayer): President of German chamber of com., Rio.
Unz (dyes): Economic adviser to the German embassy, Ankara.
Zeber (Bayer): President of German chamber of com., Milan.

(*d*) Other contacts: Sometimes A. O. people abroad approached us to give a job to jobless Germans, they wanted to have settled down. I remember one case, where I was asked personally to give to a German press man a (small) retainer in Kopenhagen and he would give our local agencies press-informations or make reports on specific matters; but I have no particular remembrance or knowledge of this man. (Signed): MAX ILGNER.

FRANKFURT/M., *June 18th 1945.*

[1] Later on dismissed on account of government troubles.

EXHIBIT No. 3—Chapter VI of Kilgore Committee Report

Neuordnung, (New Order) General
Strictly Confidential

General Part

The premises for a basic study of both the planning tasks of Greater Germany's chemical industry in the major European sphere and the incorporation of such a sphere into the world economy, is furnished by the realization that, in prewar years, the German chemical industry ranked readily first with respect to both the volume of absolute quantities and values of production and its position in the chemical foreign trade of the world, and that, by reason of the prewar development trends, coupled with its productive capacity, and scientific attainments, it was ready not only to maintain its outstanding position but also to improve it. The end of the World War with all its economic consequences suddenly interrupted this clear-cut development. Territorial changes, the industrialization of countries which were formerly customers of Germany, and measures which were intentionally taken by the enemy countries against the German chemical industry, entailed shiftings of unusually great scope to the detriment of Germany.

The effects of said shiftings could be fully illustrated only if reliable and comparable data according to quantities and values for the prewar and postwar years were available on world production in the typical fields of production of inorganic and organic chemistry. Only on the strength of such production figures would it be possible to show to what extent the German chemical industry has lost ground as a result of the World War, and to what degree the adoption of domestic production in numerous countries has affected or prevented German exports. If, in the absence of such production statistics, attempts were made to illustrate the scope of these shiftings on the strength of figures of foreign trade statistics, a study based thereon would involve basic deficiencies, because as a result of the statistically not illustrated domestic production, the volume of world foreign trade in chemicals dropped necessarily from year to year as compared to prewar figures. In this connection, comparability is still further impaired by the fact that, on the other hand, an increasing number of new fields and products with their respective export values appear among export figures.

Nevertheless, a few considerations are given hereinafter, based on foreign commerce statistics:

Germany's export of chemicals in the last prewar year, i.e., 1913, amounted to 910,000,000 goldmarks.[1] On the other hand, for the year 1924, i.e. so to say the first normal year after peace was concluded, German exports of chemicals are shown amounting to 610,000,000 reichsmarks. Even though the considerable decrease in German chemical exports would be clearly revealed by a merely superficial comparison of these two figures (which show a decrease of Germany's participation in world foreign trade in chemicals (amounting to 2,730,000,000 goldmarks[2]) from approximately 1/3 in 1913 to approximately 1/5 in 1924 (world foreign trade in chemicals—3,150,000,000 goldmarks[2]), while, at the same time,

[1] Cf. Manuscript of the Association for the Safeguarding of the Interests of Germany's Chemical Industry: "Survey of the Sphere of Activities as of the End of 1928," by Dr. Claus Ungewitter, page 219.

[2] Values computed on the basis of official statistics of the individual countries and converted into gold marks, excluding Chile.

American, French, Italian and Japanese shares [in said world trade] showed an increase), attention should be called to the fact that the real extent of the decrease of German exports of chemicals, as illustrated merely by the figures, does not in any way correspond to actual conditions. These figures do not show the loss resulting from the fact that—as already emphasized at the outset—major markets such as England, United States [and], Japan, which appeared as importing countries before the World War, have, to a large extent, become capable of supplying their home markets domestically. Thus, if the German share, as it appears for the initial postwar period, is to be considered too favorable because the total volume of foreign trade by which it is measured is relatively smaller than prior to the World War, this German share seems, on the other hand, to be too high also because actual German exports of the first few postwar years already include products which before the World War were of no or only of secondary importance in the German export values. Both factors made themselves increasingly felt in subsequent years. If, therefore, the figures for the years following 1924 show a certain renewed increase in Germany's participation in world foreign trade in chemicals—although the German share would never have been in a position to revert to the nominal prewar level—this development only seems to indicate a partial recovery of lost German positions. The actual development is much rather characterized by the fact that, despite all the measures which, in those years, were still directed against Germany, the German chemical industry succeeded to a certain extent in finding certain compensation for temporarily irreparable losses by effectively coordinating research and production, business initiative and politico-economic measures, as well as by improving old assortments, creating specialties and completely novel products, and by awakening new consumers' requirements.

For these reasons, the German share in the world's foreign trade in chemicals for 1938, which amounted to approximately one-fourth, appears favorable only at first glance, since it includes the German share in exports of such chemical products as, for instance nitrogenous fertilizers, which, showing approximately 53,000,000 Mk. as compared to approximately 36,000,000 Mk. for 1913, held, prior to the World War, a much smaller share in the chemical foreign trade on the basis of technical production and consumption. This structural change in the chemical foreign trade, and the greater difficulty resulting therefrom in regard to comparability of foreign trade figures, become even more evident when bearing in mind that Germany's total share of approximately one-fourth is partly to be ascribed to the fact that in the German exports for 1938, e. g., the item "pharmaceutical products" shows approximately 127,000,000 as compared to approximately 70,000,000 for 1913, and that the item "photo-chemical products" shows approximately 32,000,000 as compared to approximately 19,000,000 for 1913. In both of the latter fields the build-up amounts less to a recovery of the positions lost as a result of the World War, than to a typical demonstration of the fact that new fields of consumption have been created in whose development, guidance, and satisfaction the German chemical industry has played a prominent role.

If, on the other hand, we limit ourselves to considering the development of the German export share in the principal major spheres of the inorganic and organic chemical industry, which are comparable with prewar times, it becomes obvious that the loss sustained as a result of the last war has

been a permanent one. This is clearly shown in the decrease of export values for "inorganic chemicals and wood carbonization products" from approximately 186,000,000 for 1913 to approximately 153,000,000 for 1938. The most marked and the heaviest loss which has been sustained by Germany lies, however, in the field of dyes and intermediate products.

Until the outbreak of the World War, organic aniline dyes were produced almost exclusively in Germany, quantitatively 82% of the total world production. Germany's actual position in the world's dyestuff production is, however, not fully expressed by the share of 82%, because the German dyestuff factories were forced by France, England, and Russia, through corresponding patent and customs legislation, to conduct part of their production in those countries. This was accomplished through the establishment of branch factories the production of which amounted, for 1913, to approximately 6% of world production. Germany's share in the world's dyestuff business amounted thus to almost 90%.

The dyestuff industry of Switzerland, which is practically as old as the German dyestuff industry, produced only 6% of world production.

Smaller well-established dyestuff plants existed prior to the World War, only in France, England, and the United States. Minor production activities which, in addition thereto, were in progress in a few countries, were practically of no importance.

The internal structure of dyestuff production which existed outside of Germany prior to the World War, was almost exclusively dependent on Germany's supplying the basic and organic intermediate products required therefor.

The world picture for 1913 appears as follows:

	Dyestuff production in tons	Percent of total
Germany	127,000	= 82
German branch factories abroad	10,000	= 6
France	2,000	= 1
England	5,000	= 3
Switzerland	10,000	= 6
U. S. A.	3,000	= 2
Total	157,000	=100

= Mk. 350-400,000,000.

World exports in aniline dyes amounted for the same year to:

	In tons	In millions of Mk.	Percent
From Germany	109,000	218	= 90.5
From Switzerland	9,000	23	= 9.5
Total	118,000	241	=100

In the field of organic intermediate products for the production of aniline dyes, Germany exported in 1913:

[To:]	Tons	In thousands of Mks.
France	1,087	1,151
England	421	721
Switzerland	4,191	4,298
U. S. A.	3,420	3,130
Poland/Russia	746	962
Total	9,865	10,262

The large consumer countries were offered a welcome opportunity by the World War to proceed against Germany's leading position. In this connection, England alleged as a reason therefor that the foundation of every chemical war industry could be found in the organic dyestuff production. Thus, "national" dyestuff industries sprang into existence in a series of countries. From the start, these efforts received governmental support through the furnishing of funds at the time of foundation, or through current subsidies. Upon conclusion of the World War, considerable protection was provided through import prohibitions and prohibitive import duties. This protection became even more effective as a result of the anti-German attitude of the consumers which was constantly encouraged.

This new "national" production in the field of dyestuffs, and the measures which were taken to build up and maintain the same, and which were partly anchored in the provisions of the Versailles Peace Treaty, led to the alteration of Germany's share in the supplying of world requirements of dyestuffs and in the world foreign trade in dyestuffs, as illustrated, in detail, in Appendices I and II.

It is thus shown that, as a result of the development of "national" dyestuffs industries in many parts of the world, German commerce supplied in 1938, only about 27% (quantitatively) and approximately 40% (according to value) of the world requirements which amounted to approximately 700,000,000 Mk., as compared to approximately 90% for 1913, and that the German exports of 218,000,000 Mk. (=90% of world exports) for 1913 dropped to 126,000,000 Mk. (=55% of world exports). On the other hand, based on her prewar share of approximately 90%, Germany might, theoretically speaking, have had a share of approximately 495,000,000 Mk. in the foreign consumption which, for 1938, amounted to approximately 550,000,000 Mk.

Exports in intermediate products for the production of aniline dyes dropped from approximately 10,000,000 Mk. to approximately 4,000,000 Mk.

The various countries, no doubt, even without the World War, would eventually have proceeded with the production of dyestuffs. Today's extent of non-German production, however, is distinctly the result of the political and politico-economic forces which have been directed against Germany for the last 20 years. The effect of this development goes beyond the field of dyes, because dye chemistry furnished the basis for additional production in the field of organic chemistry such as, particularly, in the fields of auxiliary products for dyeing purposes and auxiliary textile products, pharmaceutical products, vulcanization accelerators, solvents, varnishes, synthetic products, and the like.

The foregoing considerations regarding prewar and postwar situations may, insofar as their ultimate effect is concerned, be summarized by stating that, as a result of the World War, the leading position of Germany's chemical industry in world production and world foreign trade has, in the pertinent fields of large-scale production, resulted in a condition which is characterized by the obstinate defense of the keenly contested markets, against the growing competition of new foreign producers of chemicals who, due to direct or indirect governmental aid, enjoy a more favorable position. The direct damage caused to Germany's chemical industry as a result of the World War, is unproportionately greater than the direct losses of material and other assets of IG alone, which, e. g. in the case of seized German claims and stocks, sequestrated branch factories, etc., can be expressed by figures.

It will no doubt be impossible to resume where we left off at the outbreak of the World War. Neither can we reduce to its original state, the economic development which in the last twenty years has taken place in the various countries or areas to the detriment of Germany. It will be necessary, therefore, to a certain extent, to accept the deterioration of the German position in comparison with 1914 as being irreparable. It will, however, appear all the more justifiable in planning a major European spherical economy, again to reserve a leading position for German chemical industry commensurate with its technical, economic, and scientific rank. The decisive factor, however, in all planning relative to this European sphere will be the necessity of securing determined and effective leadership in the discussions which must necessarily be conducted with the other major spherical economies outside of Europe, the contours of which are already distinctly drawn at this time.

In order to guarantee that the chemical industry of Greater Germany and the European Continent can assert itself in such discussions, it is urgently required clearly to appreciate the forces which, in the world market, will be of decisive importance after the war.[1] Their importance is briefly sketched hereinafter:

1. The principal weight of the discussions bearing on a new arrangement of the world market will rest on the relationship with the *North American* concerns. Forced away from European business for reasons which were effective already prior to the war and which will become increasingly effective after the war, the Americans will do everything within their power to maintain and promote the development of their exports of chemicals, which, during the war, they were able to send to countries other than European. In this connection, appears in the foreground the Latin-American market, the importance of which must be measured not only by the economic volume of prewar sales, but also from the standpoint of economic development possibilities and trends which that part of the American Continent offers in the future. Efforts made by the Americans in the prewar period to increase their sales in the

[1]The important question bearing on the trend of England's chemical industry in relation to the chemical industry of the European Continent, and the equally significant question of the future of Switzerland's chemical industry within the major continental sphere, will be discussed within the framework of country studies, as soon as political conditions allow of a more concrete exposition.

Latin-American markets were largely hampered by difficulties arising from commercial policies, inasmuch as the United States was not in a position to liquidate the credits, accruing to her from exports to these countries, by sufficient purchases from the latter, and inasmuch as said countries, on the other hand, did not have at their disposal sufficient amounts of free foreign exchange to overcome the barrier standing between the balance of payments and the balance of trade. It must be expected, however, that, as a result of war developments, there will be a change in the relationships between the United States of America and the principal countries of the Latin-American Continent and that said change may readily facilitate the position of the American competitors. This applies not only to the field of chemicals. The strengthening of Pan-Americanism will coincide with the effects of the fact that England will now completely lose her role as financier of the Latin-American countries, which was affected quite adversely already after the last war, and that the United States of America will take her place. As a result of increased influx of American capital, Latin-America not only can, but probably will have to buy more in the United States. It will, therefore, depend on the degree of order or disorder of the European economic sphere and on the creation of a determined commercial policy, in how far and at what pace Europe, and more particularly Germany, will be able to rebuild, maintrain, and develop its position as a regular "trade partner" in the Latin-American Continent. To a certain extent, the statements made with respect to Latin-America might also apply to Canada.

The field, second in importance in the discussions with the United States, will be the countries of the Far East including what is today known as British India and the Dutch [East] Indies.

2. The discussions with the Americans with respect to the Far East will largely center around the fact that, concerning the same sphere, it must be decided in how far the European position can, in respect of *Japan*, be maintained in the Far East. The weakening of Japanese forces as a result of the Chinese conflict which is still in progress today, may offer trade-political and other opportunities for slowing up or temporarily deferring the crystallization of the economic hegemony which Japan has striven after within the sphere of the countries bordering on the Pacific Ocean. In the long run, however, it must be expected that heavier pressure upon the European economic interests in the Far East will be brought to bear by Japan—possibly also in connection with the effects of a new era of industrialization in China—rather than by the U. S. A. Probably it is not wrong, therefore, to recognize the future trend of East Asiatic trade policy in the difficulties which are today already being encountered, for example, in connection with imports into Manchukuo, Japan, and Northern China.

3. It is impossible thus far to take a clear-cut stand with respect to the problem of *Italy's chemical industry*, since the possibilities of constituting a major Italian sphere cannot as yet be envisaged in detail. On account of the particular difficulties, however, which no doubt will arise in connection with a major Italian sphere and in view of the expansionist efforts of Italy in Southeast Europe and Latin-America, which can already be felt at this time, it is necessary to emphasize already at present that it will hardly be possible, considering the general relationship between Germany and Italy, which may be expected for the period following the conclusion of the war, to negotiate with Italy on the basis of the status quo of times prior to the outbreak

of war, unless, instead of seeking increased exports, it is primarily desired to secure a greater share in the supplying of the domestic market.

4. A similar special exposition is likewise being taken into consideration for *Russia,* which, in this connection should be mentioned as a factor which, if the political conditions remain as they are, is capable of influencing and disturbing the discussions between the European chemical industry and the remaining major spheres.

In evaluating the power relationships described under 1 to 4 and their bearing on the plans to be made, one point which generally affects the economic spheres outside of Europe may not be disregarded. The present war has again started a wave of industrialization in countries outside of Europe. This development not only has a bearing on chemical production directly in the form of new or expanding chemical production centers in countries outside of Europe which will affect German and/or European chemical exports, but will, in addition, make itself felt through industries which, with a reasonable period of time, will still spring into existence in those areas which will manufacture such finished products as have until now been imported from Europe, and which will have ample need of chemicals for such manufacture.[1] The requirements for chemicals which for these purposes are increasing in countries outside of Europe, however, cannot be taken advantage of fully, or at least not at the same prices, because they will be subject to greater competition, particularly by the Americans and Japanese or even by new national producers of chemicals.

The extent and effects of this industrialization wave are being heightened by the fact that European flight capital in such non-European markets, particularly in South America, is seeking investment opportunities, and that such investments are partly supported by [patented] processes as well as by personal and material experiences which have been taken along.

The above outlines are indicative of the extent and importance of the shifting which, as a result of the World War, took place to the detriment of Germany's chemical industry. In addition to the review of past events, there is an illustration of the forces which after the war will have to be faced in serious discussions not only by Germany's chemical industry, but, in the final analysis, by the chemical industry of the European Continent. Both review and outlook show that it is necessary to direct all planning toward a successful conclusion of these discussions, and that diverging interests in European industrial countries which can be influenced politico-economically by Greater Germany, must, to this end, be subordinated to said objective.

This trend of thought is the guiding principle and decisive factor on which we are basing our expositions and suggestions with respect to the individual countries.

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[1] (Translator's note: This sentence appears to be incomplete in the German text.)

[APPENDIX TO REPORT OF KILGORE COMMITTEE]

Compilation of direct damages sustained by IG in the form of its legal predecessors as a result of the armistice conditions of November 11, 1918, the provisions of the Peace Treaty of Versailles and the conflict of the Ruhr

[In thousands of Reichsmarks]

	France	Belgium	England and Dominions	Russia	Various countries not specified	Total
(1) Branch factories and sales agencies	23,674	1,466	16,580	28,711	3,697	[1] 74,128
(2) Securities	5,955	——	3,076	——	——	[1] 9,031
(3) Stocks, claims, notes	1,245	539	11,493	3,610	4,908	[1] 21,795
(4) Outstanding claims against customers in enemy countries which were reported to the Reich Compensation Office (Reichsausgleichamt)	1,876	507	6,742	18,833	——	27,958
Total	32,750	2,512	37,891	51,154	8,605	132,912
(5) Loss of exchange and interest on reparation—and other dyestuffs as per letter sent from Frankfurt/M to the Delegates of the German Accounting Office to the Reichkomissariat for reparation deliveries, Berlin, under date of September 21st, 1926						70,000
Total						202,912

[1] Documents and vouchers of:

(1) *Badische Anilin- & Soda-Fabrik, Ludwigshafen.*—Schlussentschädigungsbescheid (final indemnification notice) v. 17.4.1934, Akt IV D, Vergel. 4349 und v. 4.1.35 Akt E 2, VAEa 65 263 IV des Landesfinanzamts Berlin als Abwicklungsstelle de Restverwaltung für Reichsaufgaben.

(2) *Farbenfabriken vorm. Friedr. Bayer & Co., Leverkusen.*—Schlussentschädigungsbescheid (final indemnification notice) d. Reichsentschädigungsamts Berlin f. Kreigsschäden v. 30.11.1929 Akt IV D, Vergl. 4302, Abt. III D und v. 9.9.1929 Abt. C I Gruppe für Wertpapiere.

(3) *Farbwerke vorm. Meister Lucius & Brüning, Höchst a. M.*—Schlussentschädigungsbescheid (final indemnification notice) v. 29.9.1932 Akt IV D, Verl. 4038 der Restverwaltung f. Reichsaufgaben, Berlin.

(4) *Leopold Cassella & Co. GmbH, Frankfurt a. M.*—Schlussentschädigungsbescheid (final indemnification notice) v. 10.1.1933 IV B. Vergl. 10633 und v. 25.3.1931, E, III/IV B 10633 des Reichsentschädigungsamtes für Kreigsschäden, Berlin.

(5) *Aktiengesellschaft für Anilinfabrikation, Berlin.*—Schlussentschädigungsbescheid (final indemnification notice) v. 24.9.1930 Akt. IV D, Vergl. 16186 d. Reichsentschädigungsamts f. Kreigsschäden, Berlin.

(6) *Chemische Fabrik Griescheim-Elektron, Frankfurt a.* M.—Schlussentschädigungsbescheid (final indemnification notice) v. 14.10.1931 Akt IV D, Vergl. 4645 der Restverwaltung für Reschsaufgaben.

(7) *Chemische Fabriken vorm. Weiler-ter Meer, Uerdingen.*—Schlussentschädigungsbescheid (final indemnification notice) v. 17.7.1930 Abt. E, Akt. IV D Vergl. 9349 d. Reichsentschädigungsamts f. Kriegsschäden, Berlin.

(8) *Kalle & Co., Biebrich.*—Schlussentschädigungsbescheid (final indemnification notice) v. 20.6.1929 Akt IV D, Vergl. 9330 d. Reichsentschädigungsamts f. Kreigesschäden, Berlin.

(9) *Wülfing, Dahl & Co., Barmen.*—Schlussentschädigungsbescheid (final indemnification notice) v. 5.9.1929 Akt II 6A (S) 803 Dad. d. Reischsentschädigungsamts f. Kreigsschäden, Berlin.

[2] In [foreign] enemy countries.

[3] (10) Schadensanmeldung für "Aussenstände" beim Reichsausgleichsamt, Berlin, laut unseren Büchern. (Damage claim for "unpaid balances" submitted to the Compensation Office in Berlin in accordance with our books.)

The damages acknowledged by the appropriate official agencies therefore amount to a total of approximately Mk. 133,000,000 to which must be added the 70,000,000 Mk. reported as losses of exchange and interest on reparation and other deliveries of dyestuffs. The approximate amount of Mk. 203,000,000, however, comprises only part of the direct damages sustained by German national economy, because there are a series of major damage items which, at that time, were not reported to either the Reich Indemnification Office or the Reich Compensation Office. In this connection, especially the following items are involved:

(*a*) Loss in export values as a result of the computation prescribed by the Versailles Treaty for reparation deliveries at the lowest world market price instead of the normal export price.

(*b*) Damages resulting from months of paralyzation of the plants in Western Germany during the time of occupation and the Ruhr action.

(*c*) Sanction damages during the conflict of the Ruhr due to collection of duties between the occupied and unoccupied zones.

(*d*) Confiscation and expropriation of patents and trademarks, through the enforcement of low rates of compensation for compulsory and other licenses, and through depreciation of the agreed equivalent as a result of currency depreciation.

The effects which the damages, referred to under items (*a*) to (*d*) have had on German economy can, of course, not be measured accurately. Their extent, however, exceeds several times the amount on which compensation for damages was based at that time. Thus, for example, an amount of Mk. 126,000,000 accrues from item (*a*) alone.

EXHIBIT No. 13 Chapter I of Kilgore Committee Report

IG production, 1943, compared with total German production

(boundaries as of 1937)

Product	IG production 1943 including participation 50 percent and more	Percentage of total German production	Total German production, estimated
	In 1,000 tons		
1. Nitrogen	600	75	800
2. Sulfuric acid	707	35	2,000
3. Chlorine	290	46	620
4. Caustic soda and potash	345	33	1,026
5. Calcium carbide	830	61	1,370
6. Aluminum	24	8	300
7. Magnesium	27.4	88	30.9
	In tons		
8. Nickel	2,000	95	2,100
9. Carbonyl iron powder	2,100	100	2,100
	In million cubic meters		
10. Compressed gases	45	45	100
	In 1,000 cubic meters		
11. Rare gases	27.5	55	50
	In tons		
12. Organic intermediates	1,489,000	90	1,650,000
13. Solvents (the 6 largest products)	88,200	75	117,200
14. Methanol	251,000	100	251,000
15. Buna, including total production of Hüls	118,600	100	118,600
16. Plastics	57,100	90	63,900
17. Plasticizers	27,900	92	30,400
18. Synthetic resins	29,900	53	55,900
19. Synthetic tannings	30,100	94	32,000
20. Dyestuffs	31,670	98	32,520
21. Dyeing and printing auxiliaries	26,350	54	49,000
22. Detergent raw materials	79,300	100	79,300
23. IG waxes	3,980	100	3,980
24. Pharmaceuticals	4,430	55	8,000
25. Sera	———	100	———
26. Insecticides and fungicides	24,600	55	45,000
	In 1,000 tons		
27. Natural gasoline	———	—	700
28. Benzine	———	—	400
29. Synthetic gasoline	850	33	2,600
27-29	850	23	3,700
Out of this production:			
30. High-octane gasoline	650	46	1,400
31. Lubricating oil (synth.)	60	100	60
32. Explosives and gun powder	———	—	———
32a. Explosives	221	84	263
32b. Gun powder	210	70	300

33. Poisonous gases	———	95	———
34. Artificial silk (1938)	17	24	72
35. Spun rayon (1938)	53	28	189
36. Cellophane	———	100	———
37. Photographics:			
(*a*) Movie film	———	60-70	———
(*b*) X-ray film	———	50-60	———
(*c*) Film for amateur cameras	———	75-80	———
(*d*) Color film	———	80-85	———
(*e*) Photographic plates	———	50-60	———
(*f*) Photographic papers	———	50	———
(*g*) Cameras	———	5-10	———

FRANKFORT A. M., *August 13, 1945.*
No. 32, improved by new figures, August 19, 1945.

EXHIBIT No. 14 Chapter I of Kilgore Committee Report

IG Production 1937 and Dependency of Other German Industries on IG Farbenindustrie

Enclosed please find a summary of IG productions for 1937 which is made up in a similar way as the list of August 13, 1945. Compared with that list major changes appear with the following items:

	Percentage of IG	
	1943	1937
No. 5. Calcium carbide	61	52
No. 11. Rare gases	55	33
No. 22. Detergent raw materials	100	—
No. 26 Insecticides and fungicides	55	40
No. 29. Synthetic gasoline	33	50
No. 30. High-octane gasoline	46	—
No. 31. Synthetic lubricating oil	100	—

The productions of detergent raw materials, high-octane gasoline, and synthetic lubricating oil did not exist in 1937.

As regards the additional dependencies of other German industries on IG shown in the statement of August 31, 1945, the following is to be said:

No. 24. Pharmaceuticals.—The dependency of other pharmaceutical products on intermediate supplies of IG was in 1937 somewhat less than in 1943 as they could to a certain extent procure intermediates abroad. The decline of total dependency from 60 to 55 per cent is mainly due to the fact that the production of new chemo-therapeutics such as sulfa drugs was not yet fully developed.

No. 26. Insecticides and fungicides.—In 1937 copper and other metal salts were sufficiently available so that a number of independent producers were in the market; owing to lack of suitable raw materials their customers were partly supplied with IG's substitute materials during wartime. Including Intermediate supplies of IG to other firms, IG's share was 45-50 per cent in 1937.

No. 42. Paint and varnish industry.—Owing to the fact that in 1937 a number of natural products such as drying oils, natural resins, turpentine oil were available to the paint and varnish industry, the dependency on IG was far less than in 1943: at most 35 per cent.

No. 43. Soap industry.—No dependency on IG with respect to raw materials existed in 1937.

No. 44. Tanneries.—In 1937 the synthetic tanning agents were almost entirely confined to auxiliary tanning agents particularly for cutting down tanning time and giving the leather a particular tanning effect. These auxiliaries may amount to about 10 per cent of the total requirements of tanning agents. As far as chrome leather is concerned, the dependency was 100 per cent owing to the fact that IG was the sole producer of chrome salts in Germany.

No. 46. Rubber industry.—In 1937 synthetic rubber production amounted to about 5 per cent of the German rubber consumption. The dependency on IG in supplies of accelerators and other auxiliaries was 95 per cent. In all other materials necessary for processing rubber no dependency on IG existed in 1937.

For items not mentioned above the remarks of August 31, 1945, hold good also for 1937.

OSKAR LOEHR.

FRANKFURT A/M., *September 8, 1945.*

IG production, 1937, compared with total German production

Product	IG production 1937, including participation 50 percent and more	Percentage of total German production	Total German production, estimated
	In 1,000 metric tons		
1. Nitrogen	580	70	835
2. Sulfuric acid	593	35	1,700
3. Chlorine	149	40	370
4. Caustic soda and potash	199	30	660
5. Calcium carbide	515	52	950
6. Aluminum	10	7	132
7. Magnesium	12	100	12
	In metric tons		
8. Nickel	3,112	100	3,112
9. Carbonyl iron	600	100	600
	In million cubic meters		
10. Compressed gases	22	45	49
	In 1,000 cubic meters		
11. Rare gases	6.4	33	16.6
	In metric tons		
12. Organic intermediates	496,000	90	550,000
13. Solvents	97,800	75	130,000
14. Methanol	104,500	100	104,500
15. Synthetic rubber	3,473	100	3,473
16. Plastics	3,161	90	3,500
17. Plasticizers	5,578	90	6,200
18. Synthetic resins	12,370	50	24,700
19. Synthetic tanning agents	12,245	100	12,245
20. Dyestuffs	68,470	98	69,900
21. Dyeing and printing auxiliaries	23,890	55	48,000
22. Detergent raw materials	None	—	———

23. IG waxes	2,975	100	2,975
24. Pharmaceuticals	2,676	50	5,350
25. Sera	———	100	———
26. Insecticides and fungicides	5,058	40	12,850
	In 1,000 metric tons		
27. Natural gasoline	———	—	300
28. Benzene	———	—	300
29. Synthetic gasoline	300	50	600
27-29	300	25	1,200
Out of this production:			
30. High-octane gasoline	None	—	———
31. Lubricating oil (synth.)	None	—	———
32. Explosives and gun powder	(1)	(1)	(1)
32a. Explosives	(1)	(1)	(1)
32b. Gun powder	(1)	(1)	(1)
33. Poisonous gases	None	—	———
34. Artificial silk (1938)	17	24	72
35. Spun rayon (1938)	53	28	189
36. Cellophane	———	100	———
37. Photographics:			
(*a*) Movie film	———	60-70	———
(*b*) X-ray film	———	50-60	———
(*c*) Film for amateur cameras	———	75-80	———
(*d*) Color film	———	80-85	———
(*e*) Photographic plates	———	50-60	———
(*f*) Photographic papers	———	50	———
(*g*) Cameras	———	5	———

Frankfurt a/M., *September 8, 1945.*

[1] No figures available.

Dependency of Other German Industries on IG Farbenindustrie

Supplement to list "IG Production 1943" of August 13th, 1945

In a number of cases the percentage figures given for IG share in total German production have to be supplemented by additional data which show how far other German industries are dependent on IG for supplies of important raw materials or intermediates.

No. 6. Aluminum.—IG is producer of synthetic Kryolith and probably produces far more than half of this product, needed in considerable quantities for the electrolytical production of aluminum.

No. 16. Plastics.—Exceeding the 90 percent of the IG share, IG supplies the firm Röhm & Haas, Darmstadt, with intermediates. Thus the share of IG in the field of plastics comes up to 93-95 percent.

No. 20. Dyestuffs.—By supplying the firm Geigy, Grenzach, with intermediates it can be assumed that IG's share in the German dyestuff industry is increased from 98 to 99 percent. On the other hand it must be stated, that in peacetimes foreign firms participated with about 10 percen in the sale of dyestuffs used in Germany.

No. 24. Pharmaceuticals.—The share of 55 percent given in the list is somewhat amply calculated, because the higher value of IG products compared

with those of firms of medium and smaller size especially has been taken into calculation.

Important intermediates such as phenol, salicylic acid and aniline could be purchased on the open market in quantities sufficient for the production of large products such as aspirine and pyramidone by firms outside IG. Furthermore, the German pharmaceutical industry is almost entirely independent of IG as far as products made from natural drugs or animal glands are concerned (Morphiates, insuline and other hormones). Nevertheless there is an additional dependency on IG with respect to important synthetic pharmaceuticals, insofar the other German products rely on the supply of essential intermediates. Examples for this dependency are:

Firm	Name of product	Name of intermediate
C. H. Boehringer Sohn, Ingelheim	Sympatol (curative for cardiac trouble)	Methylamine.
E. Merck Darmstadt	Ephedrine (curative for diseases of circulatory system)	Benzylchloride.
Goedecke & Co., Magdeburg	Gelonida antineuralgica (antirheumatic)	Phenacetine.
Schering A. G., Berlin	Antipyrine (antipyretic)	Dimethylsulfate.
Do	Globucid albucid (chemotherapeutics; sulfa drugs)	Sulfanilic acid.

Taking all circumstances into consideration, the dependency of the remaining pharmaceutical industry on the supply of intermediates by IG will probably amount to another 5 percent at most and thus IG's share will be increased from 55 to 60 percent at most.

No. 26. Insecticides.—IG's share of 55 percent will be increased by 5-10 to 60-65 percent by the supplies of intermediates to medium-sized and smaller firms which work in this field.

Fields of Production Not Mentioned in the List

No. 37 (h). Photochemical products.—By its organic intermediates IG leading in this field. Its share can be estimated at 70-80 percent.

No. 38. Bichromate.—In the field of chrome salts IG was controlling 100 percent of the German manufacture. However, the figures of production declined in recent years owing to lack of chrome ore.

In normal times the outlets of the production were as follows:

	Percent
Export (mostly consumed in leather industries)	51
Germany:	
(a) Leather industry	21.0
(b) Textile industry	6.0
(c) Mineral colors	6.0
(d) Preserving mixtures for timber in mines	5.0
(e) Catalysts for chemical syntheses, particularly gasoline	4.5
(f) Metal industry (Chrome plating)	4.5
(g) Various industries	5.0
	49

In the leather industry chrome salts are used for manufacturing chrome-tanned leather, in the mineral color industry for producing chrome yellow and other chrome colors, in the textile industry particularly in the dyeing of woollen good. In preserving timber chrome salts can be replaced by other chemicals to a certain extent, but they are indispensable for catalysts particularly in the production of synthetic gasoline.

No. 39. Phosphoric acid.—IG did not produce crude phosphoric acid, but it was the only producer of pure phosphoric acid (by combustion of phosphorus) at Piesteritz. A large part of this production was consumed by IG works making mixed nitrogen fertilizers. The remainder was consumed by the soap and detergents industries, by manufacturers of foodstuffs and baking powders, for treatment of hard water and for de-rusting purposes.

No. 40. Hydrocyanic acid and syanides.—IG is the largest producer of hydrocyanic acid and cyanides. Part of its production is for own consumption to produce intermediates for plastics and synthetic rubber. IG's share of the market is estimated to be 40 to 50 percent. Sodium cyanide is mainly used in mining, particularly for flotation of ore and for tempering or hardening steel. Hydrocyanic acid and some cyanides are used for fumigation purposes, pest control, etc.

No. 41. Mineral colors.—(a) Titanium dioxide: The Titangesellschaft m. b. H., Leverkusen (50 percent owned by IG, 50 percent by National Lead) is the only producer of titanium dioxide in Germany.

(b) Lithopone: The production of Leverkusen including its participations is about 38 percent of the German production.

(c) Remaining white colors (white lead and zinc white): In this field IG did not participate.

(d) Iron oxids: By its extensive production in Uerdingen IG was leading in this field. Share probably by 90 percent.

(e) Remaining fancy colors: Participation of IG quite insignificant, but a certain dependency of other producers from IG exists with respect to chrome salts. (See No. 38 above.)

No. 42. Paint and varnish industry.—This industry needs the following products.

18. Synthetic resins, on the average about 35 percent of the total quantity.

13. Solvents, on the average about 62 percent of the total quantity.

17. Plasticiszers, on the average about 3 percent of the total quantity. Total 100 percent.

The domination in percentage of the German market by IG in the 3 groups, results in a dependency of about 65 percent of the paint and varnish industry.

No. 43. Soap industry.—In the last period of the war the soap industry by way of the group 22, "etergent raw materials" nearly entirely depended on the IG.

No. 44. Tanneries.—By the synthetic tanning materials of group 19, a strong dependency on IG of the tanneries has developed—at most 50 percent. As far as chrome leather is concerned, the dependency is 100 prcent. (See No. 38 above.)

No. 45. Glues and adhesives.—The old glues such as rye products, casein glue, and animal glues were to a considerable extent replaced by synthetic glues, for exampl: Karuit, a urea formaldehyde condensation product marketed by IG.; a phenol formaldehyde condensation product marketed by Dynamit

A. G., Troisdorf; Tegolcim, a phenol formaldehyde condensation product marketed by Theodor Goldschmidt A. G., Essen.

The share of IG. and DAG together in the market amounts to about 50 percent.

No. 46. Rubber industry.—(a) Concerning the main product caoutchouc the industry manufacturing rubber articles depended nearly entirely on the IG in the last period of the war.

(b) Accelerators, antioxidants, plasticizers and similar auxiliaries: This field was controlled by IG to about 95 percent.

(c) Carbon black: In this field IG's own production was quite insignificant but by adding the productions of Chemische Werke Hüls and Bayerische Stickstoffwerke, Piesteritz, IG's share will come up to 20-25 percent of the German production.

(d) Sulphur: The greater part of sulphur was imported from abroad.

(e) Other materials for the rubber industry: In this field was no substantial dependnecy on IG.

O. LOEHR.

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The greater part of this book is based on the author's own observation and experience in Germany and on material concerning IG Farben contained in the records of the Kilgore Committee (Sub-Committee of the U. S. Senate Committee on Military Affairs, 79th Congress). To fill in the broad picture of IG Farben and the setting within which it operated, a variety of sources was used. The following is a list of some of these sources, grouped according to the chapters in which they were cited:

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Index

PAGE

A

Abs, Hermann 213
Advance Solvents & Chemical Corp. 168
A. E. G. (German General Electric Co.) 40, 43, 213
AGFA (IG) 27, 34
Agfa-Ansco 182
Ala Littoria 151
Alien Property Custodian 37, 167, 178-183, 186-189
"Alig" agreement 173
alizarin red 123
Allen, George E. 129, 187
Allied Chem. & Dye 183, 190
Alted 171
aluminum 170-172
Aluminum Co. of America (Alcoa) 10, 171-173, 184
Aluminum Werke 172
Ambler, Eric 97
Am. Bosch Co. 246
American Cyanamide 183
American IG Co. 147, 182, 188
American Magnesium Co. 172, 184
anesthetics 30
Anglo-German Naval Treaty (1935) 78
Anilinas Alemanas 167, 168
Anti-dumping Act (U.S.—1921) 96
"AO" (Auslands-organization) 105, 164
Arnold, Thurman 159
atabrine 174
Attlee, Clement 192, 217
Auffinger, Lt. Col. George 209
"Aufklarungs Ausschuss" 162
Auschwitz 115, 126
Aussiger Verein 117-119
Aviation Corp. 187

B

Bach, J. S. 54
bacteriological warfare 30
Badische Anilin und Soda Fabrik (see Ludwigshafen—IG) 25, 27, 52
Bacyer, Prof. 23, 33
Baruch, Bernard 155
Bates, J. S. 186
Bausch & Lomb 175-176
Bavarian Kiln Assoc. 241
Bavarian Motor Works 6
Baxter, R. H. 187
Bayer products 27, 180, 182
Bayer Semesan Co. 238
"Bayer 205" 30
Berge, Wendell 158, 170, 174, 246
Bergius 85, 142-143, 247
Berlin NW 7 (IG) 97, 275-286
Bernstein, Col. Bernard 11, 114, 168, 196, 198, 203, 206
Biscarlet, Alfred 212
Bismarck, Otto 24, 65
black militia 76, 82
blockade 19
Bobingen Works (IG) 200
bombproof factories 5
Bone Committee 170
Bonn, University of 21
Borkin, Joseph 170-171
Boruta 119-120
Bosch, Prof. Carl 9, 13, 50-57, 66, 69-70, 85-86, 109, 111
Bosch Co. of Germany 246
Boussac, Marcel 123
Brady, Robert 128

Bremen Daschimag no. 3 217
Brest-Litovsk, Treaty of 55
British Nobel interests 91
Bruening, Chancellor 67-68, 86, 110
Brunner, Prof. 131
Brunswick, Princess of 75
Buchenwald 14
Buetefisch, Dr. 110
Bullerjahn, Walter 79
buna rubber 88, 154-155
butadiene 88
butyl rubber 155

C

camouflage ("tarnung") 95-96, 271-274
cartels 133-135, 235-249
Cassella & Co. 27
Catholic center 57, 66
Chamberlain, Joseph 36
Chamberlain, Neville 36, 113, 118, 134
Chapellier Act of 1791 243
Chaulny Chemical works 49
Chemical Foundation 179, 183
Chemnyco, Inc. 101-104
Churchill, Winston 192
Ciba 91
Clay, Gen. Lucius 197, 206, 207, 218
Cleebronn Works (IG) 11
coal 9
coal tar 22, 23
cochineal solution 23
Colt Co. 81
Communist Party (Germany) 57-58, 60-62, 68-70
Condor Airlines 151
Consolidated Vultee 187
Continental Dye Cartel 91
Creditanstalt 116-117
Crowley, Leo 186

D

Daitz, Werner 53
Daladier, E. 113
Darlan, Admiral 197
Dawson, Sir Philip 147
de Kruif, Paul 29
de Margerie 163
denazification 133, 202-214
Deutsch-Amerikanische Petroleum Co. 145
Deutsche Bank 116-117
Deutscher Verein 101
Deutsches Haus 101-102
Deutschland (submarine) 34
Dickstein Committee 107
Dies Committee 204
Dillon, Reed & Co. 197, 205
displaced persons (DP's) 12
Doenitz, Grand Admiral 225
Domagk, Gerhard 31
Donau-Chemie 117
Dornier Co. 78
Dow Chemical Co. 172-173
Draper, Gen. William 197, 198, 205, 222
Dresdner Bank 118
Duchemin 122-123
Duesseldorf Pact 134, 244-245
Duisberg, Dr. Carl 23, 26-27, 34, 40, 50, 65, 66, 73, 85-88, 89, 101, 109-112
Duisberg, Walter 101
Dulles, Allen 80-81
Duperial Co. 238
Du Pont de Nemours 10, 80, 81, 83, 92, 149, 165, 181, 183, 184-185, 189, 238
"Dustbin" 189
Duttenhofer 35
dyestuffs 8, 9, 22-23
Dyhernfurth Works (IG) 125
Dynamit-Nobel (DAG—IG) 83, 91, 184

E

Economist 243
Edwards, Corwin 170, 185, 237
Ehrlich, Paul 29
Eichenauer, Dr. J. C. 120
Eisenberg, Dr. 31
Eisenhower, Gen. Dwight 5, 11, 192, 194, 197, 206
Emanuel, Victor 129, 186-188
Erlangen University of 21. 226
Erzberger, M. 76
espionage 15, 96-105, 274-286
ethylene di-glycol 200. 229

F

Federal Bureau of Investigation 99-100
Federation of British Industries 244-245
Federation of German Industry 64-65, 244-245
Fezandie & Sperrle 166
Fischer, H. M. 163
Flick, Friedrich 129
Flinsch 169
Fluminense 165
Ford, Edsel 9, 148, 182
Ford, Henry 9, 210
Ford Co. 92
Ford Co. of Germany 182

Foreign Economic Administration 82, 198
Fourneau 30-32
Francolor S. A. 123
Frank-Fahle, Dr. Gunther 230
Frankfurter Zeitung 130
Free Corps 71-76
Freudenberg, Richard 130, 209-210
Frolich-Klupfel-Dehlmann 101
Frossard, Joseph 122-124
Frowein, Abraham 213
"Fuehrer Briefe" (Letters to Leaders) 68-69
Funk 67

G

Garvan, Francis 179
Gattineau 67, 97, 110
Gay-Lussac, Joseph 20, 21
Geigy 91
Gelmo, Paul 30-32
Gendorf Works (IG) 200, 201, 217
General Aniline & Film Co. 93-94, 166, 167, 182, 186-190
General Aniline Works 166
General Dyestuffs Corp. 166, 167, 186-187
General Electric Corp. 175
General Motors Corp. 240
General order no. 2 ....196, 264-265
General Staff (German) 77
General Troops office 77
Geneva Arms Trade Conference (1925) 180
German Democratic Party 66
German Denazification Law of March 5, 1946 208
German-Luxembourg Mining & Smelting Co. 42
German National Party 57-58, 66, 68
German People's Party 58, 66, 68
German Standard of Living Board 198, 222
German Trade Unions 65, 71
Germany's Master Plan 170-171
Gessler, Otto 52, 77
Gibbons, F. A. 187
Glaser, Erich 99
Goebbels, Joseph 62, 97, 220
Goerdeler, Dr. 131-133
Goering, Hermann 70, 109, 210
Goldmann Sachs & Co. 82
Gould, Jay 42
Graebe 23
Grasselli Chemical Co. 180, 181
Grasselli Dyestuffs Co. 181, 182
Greifelt, S. S. Gruppenfuehrer 120
Griebl, Dr. Ignatz 99
Griesheim-Elektron Works (IG) 32
Gross, Prof. 125-126
Gudenberg, Werner 99
gypsum 9

H

Haber, Fritz 35, 84-85
Haber process 49, 84
Haefliger, Paul 51
Hague Convention 33
Halbach, E. K. 166, 167, 187-188
Hallgarten & Co. 82
Hansen, Lt. Col. 98
Hari, Mata 100
Haslam, R. T. 156-157
Hasslacher, Dr. 66
Hauser, Heinrich 56, 75
Haynes, Williams 29
Heidelberger, Dr. 31
Heinkel Co. 78
Hercules Powder Co. 83
Hermann Goering Werke 128
Herodotus 142
Heuser, Frederick 102
Himmler, H. 54, 210
Hindenburg, Paul von 52, 58, 74
Hirschauer, Gen. 55
Hitler, Adolph 5, 45, 53, 58-71, 72, 89, 109, 113, 128
Hochswender, Karl 101-102
Hoechst Works (IG) 24, 25, 27, 34, 200, 214
Hoerlein, Dr. Heinrich 30-31
Hofman, Dr. F. 87
Hofmann, August von 21, 22, 25
Hofmann, Johanna 99
Homann, Heinrich 163
Hoover, Calvin B. 198, 199, 222
Hoover, Herbert 80
Howard, Frank 144-145, 149-150
Hugenberg, Alfred 214
Hull, Cordell 150
Hummel, Dr. 66
Hutz, Ralph 181
Hydrogenation of coal 86, 143-147

I

IG Chemie 94, 121, 182, 188-190
IG Farbenindustrie
general description 8-10
definition of terms 27-28
completion of organization 50-52
relations with NSDAP 65-70
summary of production 295-302
Ilgner, Max 13, 66, 97-98, 101, 105, 107, 114, 116, 163, 201, 202, 230, 274-286

Ilgner, Rudolph 101, 103-104
Imperial Chemical Industries 10, 91-92, 184, 238
industrial leaders 14
industrial revolution 18-20, 22
inflation (Germany) 45-48
Inquico 165
Inter-allied Military Control Commission 79
International Hydro-Patents Co. 146
International Trade Organization 249
iso-octane 157
isoprene 88

J

Jacobs, Dr. 31
Jasco 148, 150, 184
JCS 1067— 193, 194, 195, 197, 201, 202, 203, 209, 251-263
Junkers 14, 57, 75-77
Junkers Co. 78
Justice, U.S. Dept. 11, 170

K

Kaelble 163
Kaiser, Henry 129
Kaiser Wilhelm Institute 34
Kalle, Dr. 66
Kalle & Co. 27
Kilgore Committee 93, 168, 170, 185, 208
King, C. E. 187
Kirdorff, Emil 60, 64
Klarer, Dr. 31
Knieriem, A. von 156
Koln-Rottweil 91, 162, 184
Kondakoff 88
Krauch, Carl 108-109
Krupp Steel Co. 78, 82-83, 129, 175
Krupp von Bohlen und Halbach 34, 48, 70
Kuepper, Dr. 115
Kugler, Dr. 118
Kuhlmann, etablissement 91, 120-123

L

Landsberg Prison 60
Lammers, Dr. 66
Lavoisier, Antoine 20
lead tetraethyl 157
League of Nations Arms Reports 80
Leblanc, ... 20
Lee, Ivy 106-107
Leeb, Gen. von 113
Lefebure, Victor 33, 37
Lehr, Dr. 214
Lenin, V. I. 58
Leuna Works (IG) 56
Levadidi, Dr. 31
Leverkusen Works (IG-Bayer) 26, 27, 34, 50, 214
Ley, Dr. Robert 62
Liebermann, Dr. 23
Liebig, Justus von 21, 25
Liefmann, Robert 237, 241
Light metals 10
Locarno Conference 143
Loehr, Dr. Oskar 154, *156*
Ludendorff, Gen. von 34, 43, 60, 64, 74, 100
Ludwigshafen Works (IG) 10, 24, 25, 50, 119, 144-145, 201, 214
Lueneberger artillery range 79

M

MacGowen, Sir Henry 243
magnesite *9*
magnesium 172-173
Magnesium Development Co. 173, 182, 184
Maidanek 115
Markham, James 186
Marshall, A. E. 186
Max, Prince of Baden 75
Maxim Co. (British) 173
McConnel, Lt. 49
McConnell, Robert E. 186
McNarney, Gen. Joseph 194
Meade, Brig. Gen. 208
Mein Kampf 140
Memel 164
Martens, Carl 76
Messerschmitt plant 4
Metz, Richard 168
Meyer, Victor 33
Mietzsch, Dr. 31
Ministerial Collecting Center 212, 213
Moerker Volunteer Corps 56
Moldenhauer, Prof. 68
Moll, Alfredo 167, 168, 169
Mond, Sir Alfred 243
Morgenthau, Henry 193
Muehlheim, Farbwerk (IG) 32
Munich Pact 113, 134, 244-245
Murphy, Robert 197, 198, 203, 205, 210-211
mustard gas *229*

N

National Industrial Conference Board 72
Nazi Party (NSDAP) 14, 41, 53, 58-71, 76, 105, 203-204
Neisser 167
neoprene 148

"New Order Plan" (IG) 139, 141, 161, 166, 174, 287-295
New Republic 116
Nicolai, Col. Walther 100-101
Niemoeller, Pastor 226
nitrates, Chilean 28
Nixon, Russell A. 203, 204, 208
Norsk-Hydro 92-93
Nuremberg trials 67, 77, 104
Nye Committee 80-81

O

oppanol 157
organic chemistry 19-20
Orth, Gebhard 201
Osram Co. 240
Ossietzky, Carl von 80
Overhoff, Julius 163-164, 169

P

Pabjanice 121
Pan-German Assoc. 63
patent system, German 26, 36
Patton, Gen. George 206
Pauley, Edwin 221
Perkin, William H. 22, 23
Peters, Carl 93
petroleum 142-146
Petroleum Times 156
Pferdmenges, assemblyman 213
Piekenbrok, Col. 98
Pillsbury, Col. E. S. 199, 200
Pliny 142
poison gas 125-126, 229
polymerization 88
Potsdam Agreement 192, 195, 198, 200, 201, 202, 209, 215-224, 265-270
Potsdam Reich Archives 77
Prestone 229
Preuss, Ernst G. 238
Priestly, Joseph 20
Proclaimed List 168
Public Law no. 8 207
Pulverfabrik Skoda Werke Wetzler 116-117

Q

quinine 173-174
quinine monopoly 139

R

Raeder, Grand Admiral Eric 78
Rathenau, Walther 38-41, 43, 66, 76
Reichsbank 45, 48, 63
Reichstag 44, 55, 57-58, 61, 66
Reichstag fire 70
Reichsverband der Deutschen Industrie (Reichsgruppe Industrie)—see Federation of German industry.
Reichswehr 76
Reithinger, Dr. 98, 103-104
Remington Arms Co. 174
Rentenmark 48
Reparations program 215-224
Republic Steel 187
Rheinische-Westfaelische Sprengstoff Co. 83, 174
Rheinmetall-Borsig 52, 78-79, 101
Rhenish-Westphalian Electric Works 42
Riddle of the Rhine 37
Riess, Curt 100
Rockefeller, John D. 106-107
Roehm, Ernst 97
Roell, Dr. 229
Roosevelt, Franklin D. 63, 192
Roosevelt, Theodore 241
Rosenberg, Alfred 233
Rothschilds 96, 116-117
Rowan, Richard Wilmer 99
Royal Dutch Shell 10, 146
rubber 151-156
Rubber Regulation Committee 153
Rumrich, Guenther 99
Rupprecht, Crown Prince 74

S

St. Clair du Rhone 91, 123
salicyclic acid 37
Salkind, Isadore 204
salt 9
salvarsan 29-30
Sandoz 91
"s" cash accounts 163
Schacht, Hjalmar 45, 47-48, 63-64, 70, 110
Schelling, F. von 21
Schleicher, Gen. von 77, 97
Schmidt, Orvis 213
Schmitz, Dietrich A. 101, 165
Schmitz, Hermann 13, 40-41, 66, 83, 94-95, 97, 101, 109, 113, 188-190
Schneider-Creusot 123
Schnitzler, Georg von 13, 66, 69-70, 98, 107, 117, 119-124, 129, 140, 148, 230
Schroder interests 187
Seeckt, Gen. von 77, 100
Selck, Prof. Erwin 8
Sherman Act 237

Siemens-Rheinelbe-Schuchert Union 43, 48
Siemens-Schuchert 43-44
Simon, Heinrich 131
Simons, Col. 80
Skoda Works 81
Sleeping sickness 30
Smith, Adam 235
Social Democratic Party (Germany) 44, 52, 57-58, 60-62, 68-70
Societe des Natieres Colorantes de St. Denis 91, 123
Society for the Protection of the Interests of Chemical Industry of Germany 26
Solvay Chemical Co. 129
Spartacists 75
Speer, Albert 135
Sprenger, Gauleiter 131
Stahlhelm 76
Stalin, J. V. 192
Standard Gas & Electric 186
Standard Oil Co. of Brazil 151
Standard Oil of New Jersey 10, 86, 92, 101, 107, 141-151, 154-160, 169, 184-185, 238
Starnes, Col. Joseph 204
State Department (U.S.) 80, 150
steel capacity 24, 27, 221-222
Steel Export Association 246
Steffens, Lincoln 107, 238
Sterling Products Co....106, 180, 181
Stevenson Plan 153
Stinnes, Hugo 38, 42-48, 50, 52, 96, 110
Steocker, Adolph 238
Strategic Bombing Survey (U.S.)...136
streptozon (prontosil) 31
Stresemann, Gustav 82
Sturznegger, H. & Co. 95
styrene 88
Sudetenland 117, 118
sulfanilamide 30-32
Swiss Dye Cartel 91, 190
synthetic nitrates 35, 84-86
synthetic oil 10, 14, 85-86, 142-147, 247
synthetic rubber....10, 14, 34-35, 86-88
syphilis 29-30

T

Tabun 125
Tarbell, Ida 107
"Tarnung"—see camouflage
Taylor, Col. 81
Teagle, Walter 144, 147, 182
Temporary National Economic Committee 246
Ter Meer, Dr. Fritz 125-126
tetrazine primed ammunition 174
Three-Penny Opera 58
Thyssen, F. 60, 64, 128-129
Tietz concern 213
Tilden, Sir William 87
Tilley, Maj. Edmund 125-126
Time 187
toluol 157
Treasury Dept. (U.S.) 11, 186
Truman Committee...150, 151, 155, 170
Truman, Harry S. 192, 217
tungsten carbide 175
Tyrian purple 23

U

Uebele 169

V

Veblen, Thorstein 239
"verbindungsmaenner" (IG agents) 105, 163
Vereinigte Aluminum Werke....172
Vereinigte Stahlwerke 48, 52, 70, 82-83, 129-130, 197, 213
"Vermittlungsstelle W." (army liaison office) 107-109
Versailles Treaty 55, 60, 64, 72-74, 77, 176
Vickers 15
Vogler, Albert 70
von Humboldt 163
von Papen, F. 97, 99
Voss, Otto 99
"VOWI" (IG) 103

W

Waninger, Dr. Karl 78-79
Warburg, Paul 148, 182
war games 109, 136
Warmbold, Prof. 67
Waybur, Bruce 204
Webb-Pomeren Act 237
Weimar Republic 41, 50, 52, 57, 77
Weinberg, Arthur von 86-87
Welsh, Charles 170-171
Whitney, Richard 129
Wickel, Helmut 67
Wickham, Henry 152
Wiesbaden Conference 123

Wilson, Woodrow 32
Winnica 119-120
Winterfeldt, Gen. von 75
Winthrop Chemical Co. 31, 174, 181, 182
Woehler, Friedrich 21
Wola 119, 121
Wurster, Dr. 118

Y

Yalta Agreement 192, 195, 202
Ypres, Battle of 33

Z

Zeiss of Jena 176
Zimmerli, W. F. 186
Zivnostenka Bank 118